MFYAHFVLSKRGPLAKIWLAAHWDKKLTKAHVFECNLESSVESIISPKVKMALRTSGHLLLGVVRIYHRKAKYLL ADCNEAFIKIKMAFRPGVVDLPEENREAAYNAITLPEEFHDFDQPLPDLDDIDVAQQFSLNQSRVEEITMREEVG NISILQENDFGDFGMDDREIMREGSAFEDDDMLVSTTTSNLLLESEQSTSNLNEKINHLEYEDQYKDDNFGEGND GGILDDKLISNNDGGIFDDPPALSEAGVMLPEQPAHDDMDEDDNVSMGGPDSPDSVDPVEPMPTMTDQTTLVPNE EEAFALEPIDITVKETKAKRKRKLIVDSVKELDSKTIRAQLSDYSDIVTTLDLAPPTKKLMMWKETGGVEKLFSL PAQPLWNNRLLKLFTRCLTPLVPEDLRKRRKGGEADNLDEFLKEFENPEVPREDQQQQHQQRDVIDEPIIEEPSR LQESVMEASRTNIDESAMPPPPPQGVKRKAGQIDPEPVMPPQQVEQMEIPPVELPPEEPPNICQLIPELELLPEK EKEKEKEKEDDEEEEDEDASGGDQDQEERRWNKRTQQMLHGLQRALAKTGAESISLLELCRNTNRKQAAAKFYSF LVLKKQQAIELTQEEPYSDIIATPGPRFHII

CCTGCCGGCGGCCCGACATCCTGCGGACCTACTCGGGCGCCTTCGTCTGCCTGGAGATTCTGTTCGGGGGTCT AGCGTTTTCTTTTCGCTCCTCTTTCTGGGCATGTTCCTCTGGCATGGTGGCTCAAATTGATGCTAACTGGAA CTTCCTGGATTTTGCCTACCATTTTACAGTATTTGTCTTCTATTTTGGAGCCTTTTTATTGGAAGCAGCAGCAC ATCCCTGCATGATTTGCATTGCAATACAACCATAACCGGGCAGCCACTCCTGAGTGATAACCAGTATAACATAAA CGTAGCAGCCTCAATTTTTGCCTTTATGACGACAGCTTGTTATGGTTGCAGTTTGGGTCTGGCTTTACGAAGATG GCGACCGTAACACTCCTTAGAAACTGGCAGTCGTATGTTAGTTTCACTTGTCTACTTTATATGTCTGATCAATTT CTTTTTCCCTTTCCCCCTTTATTTCCTCCTTTTCTTCTGAAAGTTTCCTTTTATGTCCATAAAATACAAATAT ATTGTTCATAAAAAATTAGTATCCCTTTTGTTTGGTTGCTGAGTCACCTGAACCTTAATTTTAATTGGTAATTAC AGCCCCTAAAAAAAACACATTTCAAATAGGCTTCCCACTAAACTCTATATTTTAGTGTAAACCAGGAATTGGCAC ACTTTTTTTAGAATGGGCCAGATGGTAAATATTTATGCTTCACGGTCCATACAGTCTCTGTCACAACTATTCAGT TTTATAAAAACAAGGGGAGGCTGGGTTTAGCCTGTGGGCCATAGTTTGTCAACCACTGGTGTAAAACCTTAGTTA TATATGATCTGCATTTTCTTGAACTGATCATTGAAAACTTATAAACCTAACAGAAAAGCCACATAATATTTAGTG TCATTATGCAATAATCACATTGCCTTTGTGTTAATAGTCAAATACTTACCTTTGGAGAATACTTACCTTTGGAGG AATGTATAAAATTTCTCAGGCAGAGTCCTGGATATAGGAAAAAGTAATTTATGAAGTAAACTTCAGTTGCTTAAT CAAACTAATGATAGTCTAACAACTGAGCAAGATCCTCATCTGAGAGTGCTTAAAATGGGATCCCCAGAGACCATT GCCCTGTGCATGAATATACCCATATTTGTGTGTGGATATGTGAAGCTTTTCCAAATAGAGCTCTCAGAAGAATTA AGTTTTTACTTCTAATTATTTTGCATTACTTTGAGTTAAATTTGAATAGAGTATTAAATATAAAGTTGTAGATTC GGAAAGGTGCCAAACTGTTTTGAATGGAAGGACAAGTAAGAGTGAGGCCACAGTTCCCACCACACGAGGGCTTTT GTATTGTTCTACTTTTCAGCCCTTTACTTTCTGGCTGAAGCATCCCCTTGGAGTGCCATGTATAAGTTGGGCTA TTAGAGTTCATGGAACATGAACAACCATGAATGAGTGGCATGATCCGTGCTTAATGATCAAGTGTTACTTATCT AATAATCCTCTAGAAAGAACCCTGTTAGATCTTGGTTTGTGATAAAAATATAAAGACAGAAGACATGAGGAAAAA CAAAAGGTTTGAGGAAATCAGGCATATGACTTTATACTTAACATCAGATCTTTTCTATAATATCCTACTACTTTG GTTTTCCTAGCTCCATACCACACCCTAAACCTGTATTATGAATTACATATTACAAAGTCATAAATGTGCCATAT GGATATACAGTACATTCTAGTTGGAATCGTTTACTCTGCTAGAATTTTAGGTGTGAGATTTTTTGTTTCCCAGGTA TAGCAGGCTTATGTTTGGTGGCATTAAATTGGTTTCTTTAAAATGCTTTTGGTGGCACTTTTGTAAACAGATTGCT TCTAGATTGTTACAAACCAAGCCTAAGACACATCTGTGAATACTTAGATTTGTAGCTTAATCACATTCTAGACTT GTGAGTTGAATGACAAAGCAGTTGAACAAAAATTATGGCATTTAAGAATTTAACATGTCTTAGCTGTAAAAAATGA ATAAAGTATTCATTTGATAAAAAAAAAAAAAAA

MSAGGASVPPPPNPAVSFPPPRVTLPAGPDILRTYSGAFVCLEILFGGLVWILVASSNVPLPLLQGWVMFVSVTA FFFSLLFLGMFLSGMVAQIDANWNFLDFAYHFTVFVFYFGAFLLEAAATSLHDLHCNTTITGQPLLSDNQYNINV AASIFAFMTTACYGCSLGLALRRWRP

CCACCGGGGGGGGGGCTCCTAGACCGGGGGTGCATGAAGAGGACCCGCGACGAGGTGGATGCGACGCTG CAGATCGCCAAGCTGAATGCGGCCGAGCTGCTGCCGGCGGTGCACTGCCTGGGCTTCGGCCCTGGGGCCAGCGGC GCTGCAGCCGGCGACTTCTGCCTGCTGGAGCTGGAGCCCACGCTGTGCCAGCAGCTGGAGGATGGACACAGTCTT GTGATTCGTGGTGATAAAGACGAGCAGCTGTGCTGTGCAGTAAAGACAAAACATACGACTTGAAGATAGCAGAC ATTATTCACACTGAGATCTTTGGTTTTTCTAATAATTATTGGGAATTAAGAAGACGTAGACCCAAGTTAAAGAAG CTAAAGAAACTTTTGATGGAAAATCCATATGAAGGACCTGACAGTCAAAAAGAGAAGGATTCAAATAGCTCAAAA TATACAACTGAAGATTTGCTTGATCAAATTCAGGCAAGTGAGGAAGAAATAATGACCCAATTACAAGTTCTAAAT GCCTGTAAGATTGGAGGTTATTGGAGGATTCTTGAATTTGATTATGAGATGAAACTTCTGAATCATGTAACTCAG CTTGTGGATTCTGAATCATGGTCTTTTGGTAAAGTTCCTTTGAACACATGCCTTCAGGAACTCGGACCATTGGAG XXXXXXXXXXXXXXXXXXXXAGCAGCAGCAGCACGAATGCTACTTCAGAATGCGGTGAAATTCAATCTCGCTGAG TTTCAAGAAGTGTGGCAGCAGAGTGTTCCTGAAGGAATGGTAACTAGTCTTGATCAGCCTTAAGGGTTTAGCGCTG GTGGATAGACACTCGAGACCAGAAATCATATTTTTGCTGAAAGTAGATGATTTACCTGAGGATAATCAGGAACGT TTTAATAGCCTTTTCTCTCTAAGGGAGAAGTGGACAGAAGAAGATATTGCTCCATATATTCAAGATTTGTGTGGA GAGAAGCAAACCATAGGTGCATTACTCACTAAATATTCTCATTCTTCGATGCAAAATGGTGTTAAAGTTTATAAT · TCGAGAAGACCCATTTCTTAAAAGAACAACGGTCTTTTCTTCAGGACTCAAGTTGCTTTATAAAGTTGCTGGATA GAAGAAAATAACTTGTACTTTTATTTCTGACTTTTAGAAACCTAGTCTTCTAAGGCATTTTTCTCCTCATCTTA AGCATTTTGAAACTACTGTTATTTCTTAAATGTTATAGGATGTAGCTTTAAAATTATATTTTGTACTATGTACACA TATATTTAAAATGTCATTTCTTTACTTAGGATTTGATGTTCTAATCATTAATACACTTAAGTTTTCCAGAGAACT ATTGGCTGAATAATTACTCCTCTGCCTGGCGTAGACATGCGCTTTGGGAAAAAAACGAGTTTATAATCCTATAAT  ${\tt GAAGAATACTGGCACAGGCAATGCTCACTCGAAAACTTCAAGTAATTTCTAGTTGGTTTTTGGAATGCTTGATAAA}$ AACTCATCACCAGGACAGTTGGAGGGGGTAGGCCGAGGTTAAATGGTCCACGTTTCAAAAATGTTAATGGCTAAT CCATAATTAAAGAAGGTTTAACTGTTACTGAAGTTTACAAGTTTTATTGTCATGAACATGAAATACAAACACGAT GGCTTCGAAATGTCTTTCAATAAATGTTTCTGCATTT

ACGCCCTATACAACTTGGCTTCACATACTTTTACACTAACTTTATATGATTTTTAAAAAACTGGTCTGATCGGACT TCTCGTCCTGGGACACTGTTTACTGGAGTCTGGCCGGCTCTCCGTGCTCCTCTTGGTACCTCATTTTGGGGAGAA CCTTAAACCCACTCGAGCAGATAATCTCCGCCTTGACCGGTGCCACCAAAGAAGCCTTGGAACCATGTGGACTTT TCTGGGCATTGCCACTTTCACCTATTTTTATAAGAAGTTCGGGGACTTCATCACTTTGGCCAACAGGGAGGTCCT GTTGTGCGTGCTGGTGTTCCTCTCGCTGGGCCTGGTGCTCTCCTACCGCTGTCGCCACCGAAACGGGGGTCTCCT CTGGGCCAAATCCCCCCCTGAATCAGAAAATAAGGAGCAGCTCGAGGCCAGGAGGCGCAGAAAAAGGAACCAATAT TTCAGAAACAAGCTTAATAGGAACAGCTGCCTGTACATCAACATCTTCTCAGAATGACCCCAGAAGTTATCATCGT GGGAGCTGGCGTGCTTGGCTCTTGGCAGCTGTGCTTTCCAGAGATGGAAGAAAGGTGACAGTCATTGAGAG AGACTTAAAAGAGCCTGACAGAATAGTTGGAGAATTCCTGCAGCCGGGTGGTTATCATGTTCTCAAAGACCTTGG TCTTGGAGATACAGTGGAAGGTCTTGATGCCCAGGTTGTAAATGGTTACATGATTCATGATCAGGAAAGCAAATC AGAGGTTCAGATTCCTTACCCTCTGTCAGAAAACAATCAAGTGCAGAGTGGAAGAGCTTTCCATCACGGAAGATT CATCATGAGTCTCCGGAAAGCAGCTATGGCAGAGCCCAATGCAAAGTTTATTGAAGGTGTTGTGTTACAGTTATT AGAGGAAGATGATGTGATGGGGGAGTTCAGTACAAGGATAAAGAGACTGGAGATATCAAGGAACTCCATGCTC CACTGACTGTTGTTGCAGATGGGCTTTTCTCCAAGTTCAGGAAAAGCCTGGTCTCCAATAAAGTTTCTGTATCAT CTCATTTTGTTGGCTTTCTTATGAAGAATGCACCACAGTTTAAAGCAAATCATGCTGAACTTATTTTAGCTAACC CGAGTCCAGTTCTCATCTACCAGATTTCATCCAGTGAAACTCGAGTACTTGTTGACATTAGAGGAGAAATGCCAA GGAATTTAAGAGAATACATGGTTGAAAAAATTTACCCACAAATACCTGATCACCTGAAAGAACCATTCTTAGAAG TTCTTTTGGGAGACGCATATAATATGAGGCATCCACTTACTGGTGGAGGAATGACTGTTGCTTTTAAAGATATAA AACTATGGAGAAAACTGCTAAAGGGTATCCCTGACCTTTATGATGATGCAGCTATTTTCGAGGCCAAAAAATCAT TTTACTGGGCAAGAAAAACATCTCATTCCTTTGTCGTGAATATCCTTGCTCAGGCTCTTTATGAATTATTTTCTG CCACAGATGATTCCCTGCATCAACTAAGAAAAGCCTGTTTTCTTTATTTCAAACTTGGTGGCGAATGTGTTGCGG GTCCTGTTGGGCTGCTTTCTGTATTGTCTCCTAACCCTCTAGTTTTAATTGGACACTTCTTTGCTGTTGCAATCT ATGCCGTGTATTTTTGCTTTAAGTCAGAACCTTGGATTACAAAACCTCGAGCCCTTCTCAGTAGTGGTGCTGTAT TGTACAAAGCGTGTTCTGTAATATTTCCTCTAATTTACTCAGAAATGAAGTATATGGTTCATTAAGCTTAAAGGG ACCATACCACTTATAAAGTGGAAACTCTTGGACCAAGATTTGGATTAATTTGTTTTTTGAAGTTTTTTGTATATAA ATATGTAAATACATGCTTTAATTTGCAATTTAAAATGAAGGGGTTAAATAAGTTAGACATTTAAAAAGAAATGATT GTTACCATAAATTAGTGCTAATGCTGAGGAGAACTACAGTTTTTCTTTTGAATTTAGTATTTGAGATGAGTTGTT GGGACATGCAAATAAAATGAAGAATGA

 ${\tt MAFLASGPYLTHQQKVLRLYKRALRHLESWCVQRDKYRYFACLMRARFEEHKNEKDMAKATQLLKEAEEEFWYRQ}\\ {\tt HPQPYIFPDSPGGTSYERYDCYKVPEWCLDDWHPSEKAMYPDYFAKREQWKKLRRESWEREVKQLQEETPPGGPL}\\ {\tt TEALPPARKEGDLPPLWWYIVTRPRERPM}$ 

GAGGCTTGGCGGGAAAAGAACGGAGGGAGGGATCGCGCTGAGTATAAAAGCCGGTTTTCGGGGCTTTATCTAAC AGCTGCGCTGCGGGCGTCCTGGGAAGGGAATCCGGAGCGAATAGGGGGCTTCGCCTCTGGCCCAGCCCTCCCGC CACTGGAACTTACAACACCCGAGCAAGGACGCGACTCTCCCGACGCGGGGAGGCTATTCTGCCCATTTGGGGACA CTTCCCCGCCGCTGCCAGGACCCGCTTCTCTGAAAGGCTCTCCTTGCAGCTGCTTAGACGCTGGATTTTTTTCGG GTAGTGGAAAACCAGCAGCCTCCCGCGACGATGCCCCTCAACGTTAGCTTCACCAACAGGAACTATGACCTCGAC TACGACTCGGTGCAGCCGTATTTCTACTGCGACGAGGAGGAGCAACTTCTACCAGCAGCAGCAGCAGCAGCAGCAGCTG CAGCCCCGGCGCCCAGCGAGGATATCTGGAAGAAATTCGAGCTGCTGCCCACCCCGCCCCTGTCCCCTAGCCGC CGCTCCGGGCTCTGCTCGCCCTCCTACGTTGCGGTCACACCCTTCTCCCTTCGGGGAGACAACGACGGCGGTGGC GGGAGCTTCTCCACGGCCGACCAGCTGGAGATGGTGACCGAGCTGCTGGGAGGAGACATGGTGAACCAGAGTTTC ATCTGCGACCGGACGACGACGTCATCAAAAACATCATCATCCAGGACTGTATGTGGAGCGGCTTCTCGGCC GCCGCCAAGCTCGTCTCAGAGAAGCTGGCCTCCTACCAGGCTGCGCGCAAAGACAGCGGCAGCCCGAACCCCGCC CGCGGCCACAGCGTCTGCTCCACCTCCAGCTTGTACCTGCAGGATCTGAGCGCCGCCGCCTCAGAGTGCATCGAC CCCTCGGTGGTCTTCCCCTACCCTCTCAACGACAGCAGCTCGCCCAAGTCCTGCGCCTCGCAAGACTCCAGCGCC TTCTCTCCGTCCTCGGATTCTCTCTCTCGACGGAGTCCTCCCCGCAGGGCAGCCCCGAGCCCCTGGTGCTC CATGAGGAGACACCGCCCACCACCAGCAGCGACTCTGAGGAGGAACAAGAAGATGAGGAAGAAATCGATGTTGTT TCTGTGGAAAAGAGCCAGGCTCCTGGCAAAAGGTCAGAGTCTGGATCACCTTCTGCTGGAGGCCACAGCAAACCT CGGAAGGACTATCCTGCTGCCAAGAGGGTCAAGTTGGACAGTGTCAGAGTCCTGAGACAGATCAGCAACAACCGA AAATGCACCAGCCCCAGGTCCTCGGACACCGAGGAGAATGTCAAGAGGCGAACACACAACGTCTTGGAGCGCCAG AGGAGGAACGAGCTAAAACGGAGCTTTTTTGCCCTGCGTGACCAGATCCCGGAGTTGGAAAACAATGAAAAGGCC GAAGAGGACTTGTTGCGGAAACGACGAGAACAGTTGAAACACAAACTTGAACAGCTACGGAACTCTTGTGCGTAA GGAAAAGTAAGGAAAACGATTCCTTCTAACAGAAATGTCCTGAGCAATCACCTATGAACTTGTTTCAAATGCATG ATCANATGCAACCTCACAACCTTGGCTGAGTCTTGAGACTGAAAGATTTAGCCATAATGTAAACTGCCTCAAATT GTTTTTAAAAAATTTTAA

GGTAATTCATTTGCACACCTGTTAGCAAGAAACAGAAGTTGAAGGACTGGAACAAGTGAACTAGGAAAGAGGGAA CGCCAATCCAAGGATAGAAGGACAAGGACAGAATCACCAGCACTGGCTGAAGGTACCTTAACATGGGGAATCTTC TTAAAGTTTTGACATGCACAGACCTTGAGCAGGGGCCAAATTTTTTCCTTGATTTTTGAAAATGCCCAGCCTACAG AGTCTGAGAAGGAAATTTATAATCAGGTGAATGTAGTATTAAAAGATGCAGAAGGCATCTTGGAGGACTTGCAGT CATACAGAGGAGCTGGCCACGAAATACGAGAGGCAATCCAGCATCCAGCAGATGAGAAGTTGCAAGAGAAGGCAT GGGGTGCAGTTGTTCCACTAGTAGGCAAATTAAAGAAATTTTACGAATTTTCTCAGAGGTTAGAAGCAGCATTAA AACAGTTTGCAGAAATTCTTCACTTCACACTCCGGTTTGATGAACTCAAGATGACAAATCCTGCCATACAGAATG ATTTCAGCTATTATAGAAGAACATTGAGTCGTATGAGGATTAACAATGTACCGGCAGAAGGAGAAAATGAAGTAA ATAATGAATTGGCAAATCGAATGTCTTTGTTTTATGCTGAGGCAACTCCAATGCTGAAAACCTTGAGTGATGCCA CAACAAAATTTGTATCAGAGAATAAAAATTTACCAATAGAAAATACCACAGATTGTTTAAGCACAATGGCTAGTG TATGCAGAGTCATGCTGGAAACACCGGAATACAGAAGCAGATTTACAAATGAAGAGACAGTGTCATTCTGCTTGA GGGTAATGGTGGGTGTCATAATACTCTATGACCACGTACATCCAGTGGGAGCATTTGCTAAAACTTCCAAAATTG ATATGAAAGGTTGTATCAAAGTTCTTAAGGACCAACCTCCTAATAGTGTGGAAGGTCTTCTAAATGCTCTCAGGT ACACAACAAAACATTTGAATGATGAGACTACCTCCAAGCAAATTAAATCCATGCTGCAA**TAA**CAATTCTGGAATA AGCACCTGCTGTAGACAGAAGACAGTATTCTGCAATGACTGAGAATGCAGTTTTTTAGTGATTGCAATTACTATC TCATTTATTCTTGCTTTTCCTCTGTTCCTCTTTCCTCTTTTTTAATCATGTTCTTAAGACTTCTTTT CTGTGCCAAAATCAGTAAAGTTACACTCTGAAGGGATATCATCCTTTCAAACGGGCCATCTAAGGCAGCTAATTA AAACTAATATTTAATATTGCTTCTCCTGCATGGCAAAACTGCCTATTCTGCTATTTAAAAAACCCTCAATGACTTT ATTTTCTACTGCCGCCTTTTTCATGTGCAACCAAAATGAAAATGTTTAAATTAACTGTGTTGTACAAATGGTACC ATGTATGTTGTGTGTTTAACCTTTATTAACTAACGTTAAAAGCTGTGATGTGTGCGTAGAATATTACGTATGCAT 

MGNLLKVLTCTDLEQGPNFFLDFENAQPTESEKEIYNQVNVVLKDAEGILEDLQSYRGAGHEIREAIQHPADEKL QEKÄWGAVVPLVGKLKKFYEFSQRLEAALRGLLGALTSTPYSPTQHLEREQALAKQFAEILHFTLRFDELKMTNP AIQNDFSYYRRTLSRMRINNVPAEGENEVNNELANRMSLFYAEATPMLKTLSDATTKFVSENKNLPIENTTDCLS TMASVCRVMLETPEYRSRFTNEETVSFCLRVMVGVIILYDHVHPVGAFAKTSKIDMKGCIKVLKDQPPNSVEGLL NALRYTTKHLNDETTSKQIKSMLQ

GCTCCGGGCCAGCCGCGGTCCAGAGCGCGCGAGGTTCGGGGAGCTCGGCCAGGCTGCTGGTACCTGCGTCCGCCC GCCAGTGCTGCTGCCCTTCTGGGTGTGGAGCGAGCCAGCTCGCTGATGTGCTTCTCCTGCTTGAACCAGAA GAGCAATCTGTACTGCCTGAAGCCGACCATCTGCTCCGACCAGGACAACTACTGCGTGACTGTGTCTGCTAGTGC CGGCATTGGGAATCTCGTGACATTTGGCCACAGCCTGAGCAAGACCTGTTCCCCGGCCTGCCCCATCCCAGAAGG CGTCAATGTTGGTGTGGCTTCCATGGGCATCAGCTGCTGCCAGAGCTTTCTGTGCAATTTCAGTGCGGCCGATGG CGGGCTGCGGGCAAGCGTCACCCTGCTGGGTGCCGGGCTGCTGCTGAGCCTGCTGCCGGCCCTGCTGCGGTTTGG TGTATGGGAGCCCCTGACTCCTCACGTGCCTGATCTGTGCCCTTGGTCCCAGGTCAGGCCCACCCCCTGCACCTC  $\tt CTTGGGGGACCGCGGAAGGGACGAGGGTTCCCTGGAGTCTTACGGTCCAACATCAGGACCAAGTCCCATGGACAT$  ${\tt GCTGACAGGGTCCCCAGGGAGACCGTGTCAGTAGGGATGTGTCCTGGCTGTGTACGTGGGTGTGCAGTGCACGT}$ GTAGCCCCTGCCCTGGCACAGCTGCATGCACTTCAAGGGCAGCCTTTGGGGGTTTGGGGTTTCTGCCACTTCCGG GTCTAGGCCCTGCCCCAAATCCAGCCAGTCCTGCCCCAGCCCACCCCCACATTGGAGCCCTCCTGCTTTGGT GCCTCAAATAAATACAGATGTCCCC

TGTTGAGAGGCTGGCCTGCGGTGATGTGGCCAAAGAGGAAGAGCTGGGCTGGGGTGAGTGTTGGTCACATGGTTG AAACTAGGTGGGAGGGGAGTGGTCCAGGGGAGAGTCCAGGCCCAGCTCTGCTGGGACTTGCCATGGGGGTCACG ACTCATCTGCAGGGAAGGTCTGGGCTTTATCTCTGAGCACCTCTGTGTGCTCCTCACCCTGAAGTGGGGGTGGGC  $\tt CTGTGCCTGGCCTGTCCCTCATCCTGGGAGCTCCCAATGCCCATCTGCAAGGCTGTGGACCCCTCAGGAGTGGC$ TTTCCTGGAGGAGGGCTCCCATGCTGGCCCTCCACCCCTGTCACCCTGAGGCCTCTGGATTTCCTC GGCACAAGCGGGGCTGTGTCAAGGTGGGTATGCAGGGGTAGCACAAGTGTGCAGAGCCTGGGGAGGCATGGGCAA AGCATGGCAGGCGGGGCAGGGGATCTTGGAAGGTCACGGGCTGGGGAGCAGTGTGGGCAGCGGCCCAGAGGT GGGAAGGCCGTAGCTTAGCTGGGTGTCCCCTTTCTGTCCTCTGCAGGTGGAGCCCCCTGAGCTGCCCGCTGATCT GCAGCACTGGATCTCCTACAACGAGGCCAGCAGCAGCTGCTCCGCATGGAGAGTGGGCTCAGTGATGTCACCAA GGACCAGTGACCGCCACCTTCACACCGTCTGCCCTGGCCACCATCCTGGGCCTGGGGGCTGCCCACAGATGGGCA  $\verb|CCCCAGTTATTGATACCCCTCTGTGCTGGGCTCCACGCTAGGCAGAGGAGGAGTGGCATTGGCATCCTGACCCA| \\$  $\verb|CCTAGGTAGGGGAGGATGGTGCCTGGAGCAGAGGGACCCACAAGTGCCTCCGAGCCTAGATCCTGGCTCGGACC| \\$ ACTGCAAGGCCGAGGCAGGCCAGACCAGAGCATCCTGGGTACAGGCCTGGGCTCTCCAGGGCCTGGGCCTGAT  ${\tt TCAGGTGCAGTGGGCACTCCTGAAGGGTCAGAGCGGCATCTGCCAGGCAGCCCCTCTGGCTTCCGCTGAGGTGGT}$ TGCAGGCCTGGGGCAGAGCCTGGGTGGTCAGAGGCCGGGGCTAGAGGCAGTGGAAGGGAGGCATTTGCTGACAG AGGACGGGGCACCCGGGCTCCCACTGCAGTCGGCCTTGCCTCCTCCTCCTCCTACCTCCAGTCAGGCTGGAC GGGAGGGTAGCCTTGTGGCTGAGAGGGGTCAGACTAGGTGGCACAGGGGCTCCTGGAAAGACAGCAGGCTTCCTG  $\tt CTGGGCGTTCCCTTGTTGGAGGGAATAGAGTGGGGGTGGGACTCTGCAGGGGTGTCCTTGTCCACTCGCACCCCT$ CGCCGCCCACCAGGGCCATGCTCTGTGACTTGGGCTGATCCCCACCCTTTCTGGGCCTACAGCACCACAGGCCGC TGTACCCCCTTAGAGCTGCCCCTCTCTGGCCTGGCCGGCAGGCGTCTTCTTAACTCCTTTTGTCCTCTATATTCAG CATGTTCCTTGTCAGCTGCGGCCGGCCCTGCCTTGCGCTAGCAGAGCCTCTCCTGGCAGCTTCTCAGGTCTCC CTAATGGAGACACCAGCCTGAGGCTCCAGCTGATGCCCTCAGCTCCCAGAGAGGGGGGTGCCCCATCTAGCTGGGT GCAGGGGTCACTGCTTGTCAGGTCAGGGCCCTGTGCCCGCTTGCCTGTTCCCCTACATCTGTGCCTGCACATCCA GAACTGCCTCCTTGCCGCTGCCTCCAGGAAGCCCACCTTGAGCCAGAGTCAAGGGCTGCAGCACTGCCCGATAGA AAAGCCCAACATTAAAGGGTTTTCATTGC

TGCGCCTTCCGTGCGCCGTGCTGCGCGCGCCTCTGCAGCCGCGCGTCCGTGACCTGCTAGCTGAGCAGCGCT TCCCGGGCCGCGTGCTGCCCTCGGACTTGGACCTGCTGTTGCACATGAACAACGCGCGCTACCTGCGCGAGGCCG TGGCGGCCTCGTGCGCGCCCCCCCCCCTCGCTGCGAGCCCTTCGAGGTGCGCACCCGCCTGCTGG GCTGGGACGACCGCGCTTCTACCTGGAGGCGCGCTTTGTCAGCCTGCGGGACGGTTTCGTGTGCGCGCTGCTGC GCTTCCGGCAGCACCTGCTGGGCACCTCACCCGAGCGCGTCGTGCAGCACCTGTGCCAGCGCAGGGTGGAGCCCC GGCTCAGTGATGTCACCAAGGACCAGTGACCGCCACCTTCACACCGTCTGCCCTGGCCACCATCCTGGGCCTGGG GGCTGCCCACAGATGGGCAGTCTCAGCCATACTCTGTTCCAGCTGGAGTAGCCTCCTGACCAGCCTGGCCCACCC TGCTCCACCCACTGGGCCCCCCAGTTATTGATACCCCTCTGTGCTGGGCTCCACGCTAGGCAGAAGGAGGAGTG ATGAGGCCACTCATGTGGGCCTAGGTAGGGGAGGATGGTGCCTGGAGCAGAGGGACCCACAAGTGCCTCCCGAGC TCCAGGGCCTGGGCCTGATTCAGGTGCAGTGGGCACTCCTGAAGGGTCAGAGCGGCATCTGCCAGGCAGCCCCTC TGGCTTCCGCTGAGGTGGTTGCAGGCCTGGGGCAGAGCCTGGGTGGTCAGAGGCCGGGGCTAGAGGCAGATGGAA GGGAGGCATTTGCTGACAGAGGACGGGGCACCCGGGCTCCCACTGCAGTCGGCCTTGCCTCCTCCTCCTC ACCTCCAGTCAGGCTGGACGGGAGGGTAGCCTTGTGGCTGAGAGGGGTCAGACTAGGTGGCACAGGGGCTCCTGG AAAGACAGCAGGCTTCCTGGGGCGTTCCCTTGTTGGAGGGAATAGAGTGGGGGTGGGACTCTGCAGGGGTGTC CTTGTCCACTCGCACCCTCGCCGCCCACCAGGGCCATGCTCTGTGACTTGGGCTGATCCCCACCCTTTCTGGGC CTACAGCACCACAGGCCGCTGTACCCCCTTAGAGCTGCCCCTCTCTGGCCTGGCCGGCAGGCGTCTTCTTAACTC TGCCTCACCTTACAGCTGGGGAAACTGAGGCCTGGAATGGCCCAGAGTCACCAAGGCAAAGTTGGGGCTGGTCCC AGCCTGAGGCTCCAGCTGATGCCCTCAGCTCCCAGAGAGGGGGTGCCCCATCTAGCTGGGTGCAGGGGTCACTGC TTGTCAGCTCAGGGCCCTGTGCCGCTTGCCTGTTCCCCTACATCTGTGCCTGCACATCCAGAACTGCCTCCTTG AAGGGTTTTCATTGCAAAAAAAAAAAAAAAAAA

MLGLLVALLALGLAVFALLDVWYLVRLPCAVLRARLLQPRVRDLLAEQRFPGRVLPSDLDLLLHMNNARYLREAD FARVAHLTRCGVLGALRELRAHTVLAASCARHRRSLRLLEPFEVRTRLLGWDDRAFYLEARFVSLRDGFVCALLR FRQHLLGTSPERVVQHLCQRRVEPPELPADLQHWISYNEASSQLLRMESGLSDVTKDQ

 $\tt CTTTCCCGGAGGCTGGCAG\underline{ATG} \tt CGCGTGGTGCGGCTGCTGCGGGCGCTCCGGGCGCTCTGACGCTGCTCGGGGAGGT$ CCCCGCCGCCCGGCCTCCCGGGGTGTCCCGGGCTCGCGCAGGACGCAGAAGGGCAGTGGAGCCAGGTGGGAGAA GGAGAAGCACGAAGACGGGGTGAAGTGGAGACAGCTGGAGCACAAGGGCCCCGTACTTCGCACCCCCATACGAGCC CCTTCCCGACGGAGTGCGTTTCTTCTATGAAGGAAGGCCTGTGAGATTGAGCGTGGCAGCGGAGGAGGTCGCCAC TTTTTATGGGAGGATGTTAGATCATGAATACACAACAAAGGAGGTTTTCCGGAAGAACTTCTTCAATGACTGGCG AAAGGAAATGGCGGTGGAAGAGAGGGAAGTCATCAAGAGCCTGGACAAGTGTGACTTCACGGAGATCCACAGATA CTTTGTGGACAAGGCCGCAGCCCGGAAAGTCCTGAGCAGGGAGGAGAAGCAGAAGCTAAAAGAAGAGGCAGAAAA ACTTCAGCAAGAGTTCGGCTACTGTATTTTAGATGGTCACCAAGAAAAAATAGGCAACTTCAAGATTGAGCCGCC TGGCTTGTTCCGTGGCCGTGGCGACCATCCCAAGATGGGGATGCTGAAGAGAAGGATCACGCCAGAGGATGTGGT TATCAACTGCAGCAGGGACTCGAAGATCCCCGAGCCGCCGGGGGGCACCAGTGGAAGGAGGTGCGCTCCGATAA CACCGTCACGTGGCTGGCAGCTTGGACCGAGAGCGTTCAGAACTCCATCAAGTACATCATGCTGAACCCTTGCTC GAAGCTGAAGGGGGAGACAGCTTGGCAGAAGTTTGAAACAGCTCGACGCCTGCGGGGATTTGTGGACGAGATCCG CGTGGAGCACGTCCAGCTGCACCCGGAGGCCGATGGCTGCCAACACGTGGTGGAATTTGACTTCCTGGGGAAGGA GGACCCCGGGACGACCTCTTCGACAGGCTGACCACGACCAGCCTGAACAAGCACCTCCAGGAGCTGATGGACGG GCTGACGGCCAAGGTGTTCCGGACCTACAACGCCTCCATCACTCTGCAGGAGCAGCTGCGGGCCCTGACGCGCG CGAGGACAGCATAGCAGCTAAGATCTTATCCTACAACCGAGCCAACCGAGTCGTGGCCATTCTCTGCAACCATCA GCGAGCAACCCCCAGTACGTTCGAGAAGTCGATGCAGAATCTCCAGACGAAGATCCAGGCAAAGAAGAAGCAGCT GGCTGAGGCCAGGGCAGAGCTGAGGAGGGCGAGGGCTGAGCACAAAGCCCAAGGGGATGGCAAGTCCAGGAGTGT CCTGGAGAAGAAGAGGCGGCTCCTGGAGAAGCTGCAGGAGCAGCTGGCGCAGCTGAGTGTGCAGGCCACGGACAA GGAGGAGAACAAGCAGGTGGCCCTGGGCACGTCCAAGCTCAACTACCTGGACCCCAGGATCAGCATTGCCTGGTG CAAGCGGTTCAGGGTGCCAGTGGAGAAGATCTACAGCAAAACACAGCGGGAGAGGTTCGCCTGGGCTCTCGCCAT  ${\tt GGCAGGAGAAGACTTGAATTC} \underline{{\tt TAA}}{\tt CGACGAGCCGTGTTGAAACTTCTTTTGTATGTGTGTGTTTTTTTCACT}$ 

MRVVRLLRLRAALTLLGEVPRRPASRGVPGSRRTQKGSGARWEKEKHEDGVKWRQLEHKGPYFAPPYEPLPDGVR
FFYEGRPVRLSVAAEEVATFYGRMLDHEYTTKEVFRKNFFNDWRKEMAVEEREVIKSLDKCDFTEIHRYFVDKAA
ARKVLSREEKQKLKEEAEKLQQEFGYCILDGHQEKIGNFKIEPPGLFRGRGDHPKMGMLKRRITPEDVVINCSRD
SKIPEPPAGHQWKEVRSDNTVTWLAAWTESVQNSIKYIMLNPCSKLKGETAWQKFETARRLRGFVDEIRSQYRAD
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RVPVEKPVYKNLQLFMENKDPRDDLFDRLTTTSLNKHLQELMDGLTAKVFRTYNASITLQEQLRALTRAEDSIAA
KILSYNRANRVVAILCNHQRATPSTFEKSMQNLQTKIQAKKEQVAEARAELRRARAEHKAQGDGKSRSVLEKKRR
LLEKLQEQLAQLSVQATDKEENKQVALGTSKLNYLDPRISIAWCKRFRVPVEKIYSKTQRERFAWALAMAGEDFE

GATGGCGGCGGAGCAGGACCCCGAGGCGCGCGGGGCGGCCGCTGCTCACTGACCTCTACCAGGCCACCATGGC GTTGGGCTATTGGCGCGGGGCCGGGGCGGGGACGCCGAGTTCGAGCTCTTCTTCCGCCGCTGCCCGTTCGG  $\tt CGGCGCCTTCGCCTTGGGGGCTTGCGCGACTGTGTGCGCTTCCTGCGCGCCTTCCGCCTGCGGGACGCCGA$ CGTGCAGTTCCTGGCCTCGGTGCTGCCCCCAGACACGGATCCTGCGTTCTTCGAGCACCTTCGGGCCCTCGACTG CTCCGAGGTGACGGTGCCGAGCCCTGCCCGAGGCTCCCTCGCCTTCCCCGGAGTGCCGCTCCTGCAGGTGTCCGGG CCGCTCCTGGTGGTGCAGCTGCTGGAGACACCGCTGCTCTGCCTGGTCAGCTACGCCAGCCTGGTGGCCACCAAC ATGGGGCCTGACAGCCTACAGCTACCTGGGCGGCCTTCGACAGCAGCAGCAACGTGCTAGCGGGCCAGCT GCGAGGTGTGCCGGTGGCCGGGACCCTGGCCCACTCCTTCGTCACTTCCTTTCAGGCAGCGAGGTGCCCCCTGA  $\tt CCCGATGTTGGCGCCAGCAGCTGGTGAGGGCCCTGGGGTGGACCTGGCGGCCAAAGCCCAGGTGTGGCTGGAGCA$ GGTGTGTGCCCACCTGGGGGTGCAGGAGCCGCATCCAGGCGAGCGGGCAGCCTTTGTGGCCTATGCCTT  ${\tt GGCTTTTCCCCGGGCCTTCCAGGGCCTCCTGGACACCTACAGCGTGTGGAGGAGTGGTCTCCCCAACTTCCTAGC}$ CATTGGCACCAGTGTGGTCACCTGCCCCCAACAGCCTTCCCTGGGTGGTGTCTATAAGCTGGTGGCCGTGGGGGG CCAGCCACGAATGAAGCTGACCGAGGACCCCGAGAAGCAGACGTTGCCTGGGAGCAAGGCTGCTTTCCGGCTCCT GGGCTCTGACGGGTCTCCACTCATGGACATGCTGCAGTTAGCAGAAGAGCCAGTGCCACAGGCTGGGCAGGAGCT GAGGGTGTGGCCTCCAGGGGGCCCAGGAGCCCTGCACCGTGAGGCCAGGTGGAGCCACTACTGCGGCTCTG CCTCCAGCAGGGACAGCTGTGAGCCGCTCCCATCCCTGGCAGAGTCTAGAGCCTTGGCCCAGCTGTCCCTGAG CCGACTCAGCCCTGAGCACAGGCGGCTGCGGAGCCCTGCACAGTACCAGGTGGTGCTGCCGAGAGGCTGCAGGC CCTGGTGAACAGTCTGTGTGCGGGGCAGTCCCCCTGAGACTCGGAGCGGGGCTGACTGGAAACAACACGAATCAC TCACTTTTCCCC

AGCGCAGCGGCGTCCGAGGCAACAAGATCGCAGCTGCGGAGCCGTCTCCGCGGCGCGTGGGCTTCGTGGGCCGCG GCCGCATGGCGGGGCCATCGCGCAGGGCCTCATCAGAGCAGGAAAAGTGGAAGCTCAGCACATACTGGCCAGTG AGAGCTGCCTGCTCATCTTTGCCACCAAGCCTCATGTGCTGCCAGCTGTCCTGGCAGAGGTGGCTCCTGTGG ACACACGGGTGCTGCGGGTCTTGCCCAACCTGCCCTGTGTGGTCCAGGAAGGGGCCATAGTGATGGCGCGGGGCC GCCACGTGGGGAGCAGCGAGACCAAGCTCCTGCAGCATCTGCTGGAGGCCTGTGGGCGGTGTGAGGAGGTGCCTG AAGCCTACGTCGACATCCACACTGGCCTCAGTGGCAGTGGCGTGGCCTTCGTGTGTGCATTCTCCGAGGCCCTGG CTGAAGGAGCCGTCAAGATGGGCATGCCCAGCAGCCTGGCCCACCGCATCGCTGCCCAGACCCTGCTGGGGACGG TCTATGGACTCCACGCCCTGGAGCAGGGCGGGCTGCGAGCCACCATGAGCGCCGTGGAGGCTGCCACCTGCC GGGCCAAGGAGCTCAGCAGAAAGTAGGCTGGGCTCTGGCCATCCTTTCCTGCCTCTGTGCCCTGCCTCTCCCTG TGTCCCTTCCCCTGAGGACTGCGGCTCCCTCCTCCTGCATGAGGGTCTCCTACTGCTCCTTCTCCCCTTGCACA GGGAAATGCAGGGGGCAGGACTTGGGAGGTTCCAGCAGGCGGGGGAGCCCCGACCAGTGGGGÁCACTCCTCCCTC CCCAGTGAGCAGAAGGCACCGTGGTGGTGGCTCTGCCCCTTGCTGCAGTGAGCCCACCTTGCTGCAACATTGGTT TTACGGTAACAGGCACGGCTGGCCCAATGCCTGGTCTGGAGCTTGAGCTTTGCCTTTCCAGGTGGCTCCG TGCAGCTACAGCCAGGCCGGCTGCCTCATCTCAGCTCTAGGGGGCCACGAGCCATATGGGGTCTGCACAAGAGACC CTCTCCCCTGCAGTAAAGCCAGGGGCCCTGACGGGGCCCCCATGGGGAGCTGGAGCCTGCACCCT GGAGAAGAGGGTGGCTGTGGGGCGTGCTCATCCCCTGCTAAGGAGCAGGAGCTGCTGGGCCAGGTCTGCGGCA GACACATGCAGACCCCTGGCTTAGTCTGGATACAGGCTCCCTCTTTCCTCCCAATCCTAAGCTCCTGACAAGTGG CTCAGCTCCGTCCCCTGCCCCACAAGATTCACCTGGGCCTCCAGTCCCACGCTGGCCCCAACTGCTGCAGCTCTC GGCTTCCGCCCAACAGCCTCTGGAGGTGAGGCGGGGGCATGCCCTCAGCGAGGCTGGGCGGGGGCCTGCTGTG CCATCTCCCTGTGCGCCTGAGCAGATCAATCCACCAGTGCAAAACAGGGCTAACGGCACCTGCAGGACAGCAGCA CGCTCCATCCTCATGCTCAGCTGCCTCTGCGGCCACGGACTTCTGCCCTTCATCTGCTCTCTTACTCTCCTG AGCCTAGCCCGTCCGTAAGCTCCCTCCCTGCCTGGTTCCCAGGGCAGGCTGACTCAGTTGACTGCTTGGTCCAA GCCTGGCCCTGGCACTTGTCAGGGTCAGCCTAAGGAGATGGGAATAAAGAGGCCAGAGAGCACCAAGTGAGCTCA **TGTTTC** 

 ${\tt MAAAEPSPRRVGFVGAGRMAGAIAQGLIRAGKVEAQHILASAPTDRNLCHFQALGCRTTHSNQEVLQSCLLVIFATKPHVLPAVLAEVAPVVTTEHILVSVAAGVSLSTLEELLPPNTRVLRVLPNLPCVVQEGAIVMARGRHVGSSETKLLQHLLEACGRCEEVPEAYVDIHTGLSGSGVAFVCAFSEALAEGAVKMGMPSSLAHRIAAQTLLGTAKMLLHEGQHPAQLRSDVCTPGGTTIYGLHALEQGGLRAATMSAVEAATCRAKELSRK}$ 

 $\tt TGGCAGAGCCTTTAGTGCCCGCTACCCTCGTCCAAGCCGGAGGGGCTACTCTTCCCACCATGGGCCTTCGTGGCG$ CAAGAAATACTCCCTCGTGAATCGGCCCCCGGGACCCTCAGACCCTCCTGCCGACCATGCTGTGCGGCCGTTGCA GAACGTGGTCATCAAAGTTAAACCGCCATCAAAGTCTGGCTCTGCCAGTGCCTCAGGGGGCCCAGCGGGGCTCTTT GGAAGAATATGAGGACACCCCTGGAGTGACCAAAGGCCCCGGGAAGGTGAAGGTGAGCCCCCTCGGGGACAGCT GCAGCCCTCGAGGCCAACAAGAGCCAGGGGGACCTGCAGTGTGGAAGATCCTCTTCTGGTCTGCCAGAAGGAGCC GAGCGTGATTGCCGTCAAGGCGAGCTTCCCATCCTCCGCTCTGCCCCCACGCACTGGCCTGGGCCCTGGGCCCGGAA  ${\tt GCTGGGTTCTCATTCCGTGGCCAGCTGTGCTCCACAGCTCCTTGGGGACAGGAGAGTAGATGCTGGCCACACAGA}$ GCTGGTTGTGACCTGTCGAACTAACAAGTTCCGGAAAAACAACTACAAATGGGTGGCTGCCTCCTCGAAGAGTCC  ${\tt CCGGGTTGCTCGGAGGGCCCTCAGTCCCAGAGTGGCTGCAGAGAATGTGTGCAAGGCCTCTGCTGGCATGGCAAA}$ CAAGGTGGAGAAGCCGCAGCTCATAGCTGACCCAGAGCCCAAGCCCAGGAAGCCACGTCCTCCAAGCCAGG GTCTGCCCCCAGCAAGTACAAGTGGAAGGCCTCCAGCCCCTCTGCCTCCTCTCCTCCTCCTTCCGTTGGCAGTC GGAGGCCGGCAGGACCATGCCTCCCCAGCTCTCCCCAGTCCTGTCTAGGTCCCCGTCGGGGGACAGACCAGC AGTAGGACACAGTGGCTTGAAGCCCCTCTCTGGGGAGACCCCGCTCTCGGCTTACAAAGTGAAGAGCCGCACCAA GATCATCCGGAGACGCGGCACACACCTTCCTGGAGACAAGAAAAGCGGCACCTCACCTGCCGCCACCGCCAA GAGCCACCTCAGCCTCCGGCGGAGACAGGCCCTCAGGGGGAAGAGCCCCTGTCCTGAAGAAGACCCCCAACAA GGGCCTGGTACAGGTCACCACGCACCGACTATGTCGCCTGCCACCGAGCCGGGCCCACCTCCCCACCAAGGAAGC GTCCAGCCTGCATGCTGCGGACTGCACCCACCAGCAAGGTGATCAAGACCCGCTACCGCATTGTCAAGAAGAC CAGGTCCCTGGTGCTGAACCGCCTGCGTCCAGTTGCCAGCGGGGTGGGAAAGCCCAACCGGGCTCCCCTTGGTG GCGGAGCAAAGGCTACCGCTGCATCGGAGGGGTCCTCTACAAAGTATCTGCCAACAAGCTCTCCAAGACCTCCGG GTACTGCATGTACTACAACCGCTTCGGCAGGTGCAACCGTTGGCGAGGCGCTGCCCCTACATCCACGATCCCGAGAA GGTGGCCGTGTGCACCAGGTTTGTCCGGGGCACCTGCAAGAAAACGGATGGGACCTGCCCCTTCTCCCACCATGT GTCCAAGGAGAAGATGCCGGTGTGCTCCTACTTCCTGAAGGGCATCTGCAGCAACAGCAACTGTCCCTATAGCCA CGTGTACGTGTCCCGCAAGGCCGAGGTCTGCAGCGACTTCCTCAAAGGCTACTGCCCCCTGGGTGCAAAGTGCAA CCACCGTACCCAGAAACGCCACAGTCGGCGGGCAGCCACGTCCCCCGCCCCAGGGCCCAGCGACGCAACCGCCAG GAGCAGGGTCTCGGCCAGCCACGGGCCCAGGAAGCCTTCAGCATCCCAGCGCCCCACCAGGCAGACGCCCAGCTC GGCTGCCCTCACTGCGGCTGCCGTGGCTGCACCTCCCCACTGCCCAGGGGGGTCAGCCTCTCCCTCATCCTCGAA GGCTTCCTCCTCCTCCTCCTCATCCCCTCCCGCTTCCTTGGACCACGAGGCACCATCTCTCCAGGAGGC AGGAGCCCAGGGTCCGGGCCCCTAGGGCCCCCTCACCAAGGACTCAGGGAAGCCTCTGCACATCAAACC ACGTCTGTGAGGACCCCAGGGACCGGCCTGCACCTACCTCAGACCCTCATCCTTGGAGAGGAAAGAGGCTCTGTC CTGGCCCTCAACCTTCCATGACCAGCGTGTGCGCAGGGCCTGGTCTTCCTCCCCCAAGCCAAGCCAGGCCCCTGTCCCCA CCCCACCACCTTCCAGGGTGCCAGGCAGGGCTGGCCTCCAGGCCTGTCCCCGACTGCCATTGGCAACAGTGGCCC TTTATGTTCAGCAATAAAGGTTCTATCCGT

MEEKEILRRQIRLLQGLIDDYKTLHGNAPAPGTPAASGWQPPTYHSGRAFSARYPRPSRRGYSSHHGPSWRKKYS LVNRPPGPSDPPADHAVRPLHGARGGQPPVPQQHVLERQVQLSQGQNVVIKVKPPSKSGSASASGAQRGSLEEFE ETPWSDQRPREGEGEPPRGQLQPSRPTRARGTCSVEDPLLVCQKEPGKPRMVKSVGSVGDSPREPRRTVSESVIA VKASFPSSALPPRTGVALGRKLGSHSVASCAPQLLGDRRVDAGHTDQPVPSGSVGGPARPASGPRQAREASLVVT CRTNKFRKNNYKWVAASSKSPRVARRALSPRVAAENVCKASAGMANKVEKPQLIADPEPKPRKPATSSKPGSAPS KYKWKASSPSASSSSFRWQSEASSKDHASQLSPVLSRSPSGDRPAVGHSGLKPLSGETPLSAYKVKSRTKIIRR RSSTSLPGDKKSGTSPAATAKSHLSLRRRQALRGKSSPVLKKTPNKGLVQVTTHRLCRLPPSRAHLPTKEASSLH RRGPLQSICQQALQDLRPAQ

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## 2847/6881 FIGURE 2625

GTTCGCGGGGTGCGGGCGCACGGCGGCGCGAGCGTGCGGCCGGAGAAGCGGCGGTCTGAGCCCGAACTGGAGC  $\verb|CTGAGCCCGAGCCGCGCCCCCCTCTCTGCACCTCTCTCAGCCACAGCACCGGCAGCGATTCTGGCGTCT| \\$ CCGACAGCGAGGAGAGTGTTCTCAGGCCTGGAAGATTCCGGCAGTGACAGCAGTGAGGATGATGACGAAGGCG ACGAGGAGGAGGACGAGCCCTTGATGACGAGGGCCACAGTGGGATTAAAAAGACCACTGAGGAGCAGGTGC AGGCCAGCACTCCTTGCCCGAGGACAGAGATGGCGAGCGCCCGGATTGGGGATGAGTATGCGGAGGACAGCTCTG ATGAGGAGGACATCCGGAACACGGTGGGCAACGTGCCCTTGGAGTGGTACGATGACTTCCCCCACGTGGGCTACG ACCTGGATGGCAGGCGCATCTACAAGCCCCTGCGGACCCGGGATGAGCTGGACCAGTTCCTGGACAAGATGGACG ATCCTGACTACTGGCGCACCGTGCAGGACCCGATGACAGGGCGGGACCTGAGACTGACGGATGAGCAGGTGGCCC TGGTGCGGCGGCTGCAGAGTGGCCAGTTTGGGGATGTGGGCTTCAACCCCTATGAGCCGGCTGTCGACTTCTTCA AGGAGAAGGTCTCTCGCATGGTGCACGCCATCAAGATGGGCTGGATCCAGCCTCGCCGGCCCCGAGACCCCACCC CCAGCTTCTATGACCTGTGGGCCCAGGAGGACCCCAACGCCGTGCTCGGGCGCCCACAAGATGCACGTACCTGCTC TGGCGTGGGAACAGCAGGAGCCAGGCGAGAGGAAGCTGAGCTTTTTGCCACGCAAGTTCCCGAGCCTGCGGGCCG TGCCTGCCTACGGACGCTTCATCCAGGAACGCTTCGAGCGCTGCCTTGACCTGTACCTGTGCCCACGGCAGCGCA AGATGAGGGTGAATGTAGACCCTGAGGACCTCATCCCCAAGCTGCCTCGGCCGAGGGACCTGCAGCCCTTCCCCA CGTGCCAGGCCCTGGTCTACAGGGGCCACAGTGACCTTGTCCGGTGCCTCAGTGTCTCTCCTGGGGGCCAGTGGC TGGTTTCAGGCTCTGACGACGGCTCCCTGCGGCTCTGGGAGGTGGCCACTGCCCGCTGTGTGAGGACTGTTCCCG TGGGGGGCGTGTGAAGAGTGTGGCCTGGAACCCCAGCCCGCTGTCTGCCTGGTGGCTGCAGCCGTGGAGGACT CGGTGCTGCTGAACCCAGCTCTGGGGGACCGGCTGGTGGCGGCAGCACAGATCAGCTGTTGAGCGCCTTCG GGCTGCGCATCTGCCACGGGAAGCCAGTGACGCAGGTGACCTGGCACGGGCGTGGGGACTACCTGGCCGTGGTGC TGGCCACCCAAGGCCACACCCAGGTGCTGATTCACCAGCTGAGCCGTCGCCGCAGCCAGAGTCCGTTCCGCCGCA GCCACGGACAGGTGCAGCGAGTGGCCTTCCACCCTGCCCGGCCCTTCCTGTTGGTGGCGTCCCAGCGCAGCGTCC GCCTCTACCACCTGCTGCGCCAGGAGCTCACCAAGAAGCTGATGCCCAACTGCAAGTGGGTGTCCAGCCTGGCGG TGCACCCTGCAGGTGACAACGTCATCTGTGGGAGCTACGATAGCAAGCTGGTGTGGTTTGACCTGGATCTTTCCA CCAAGCCATACAGGATGCTGAGACACCACAAGAAGGCTCTGCGGGCTGTGGCCTTCCACCCGCGGTACCCACTCT TTGCGTCAGGCTCGGACGACGCAGTGTCATCGTCTGCCATGGCATGGTGTACAATGACCTTCTGCAGAACCCCT TGCTGGTGCCCGTCAAGGTGCTGAAGGGACACGTGCTGACCCGAGATCTGGGAGTGCTGGACGTCATCTTCCACC GGTTGCCAACAAGCCGCCCCCACCACA

GCTCGAGATGGATCTGCCCGTGGGCCCCGGCGCGGCGGGGCCCAGCAACGTCCCGGCCTTCCTGACCAAGCTGTG GACCCTCGTGAGCGACCCGGACACCGACGCGCTCATCTGCTGGAGCCCGAGCGGGAACAGCTTCCACGTGTTCGA GTTCCAGCACCCATGCTTCCTGCGTGGCCAGGAGCAGCTCCTTGAGAACATCAAGAGGAAAAGTGACCAGTGTGTC GGGGAAGCAGGAGTGCATGGACTCCAAGCTCCTGGCCATGAAGCATGAGAATGAGGCTCTGTGGCGGGAGGTGGC CAGCCTTCGGCAGAAGCATGCCCAGCAACAGAAAGTCGTCAACAAGCTCATTCAGTTCCTGATCTCACTGGTGCA GTCAAACCGGATCCTGGGGGTGAAGAGAAAGATCCCCCTGATGCTGAACGACAGTGGCTCAGCACATTCCATGCC CAGCTCCAGCCTCTACGCCCCTGATGCTGTGGCCAGCTCTGGACCCATCATCTCCGACATCACCGAGCTGGCTCC  ${\tt TGCCAGCCCCATGGCCTCCCCGGCGGGAGCATAGACGAGGGCCCCTATCCAGCAGCCCCTGGTGCGTGTCAA}$ GGAGGAGCCCCCAGCCCGCCTCAGAGCCCCCGGGTAGAGGAGGCGAGTCCCGGGCGCCCATCTTCCGTGGACAC  $\verb|CCTCTTGTCCCCGACCGCCCTCATTGACTCCATCCTGCGGGAGAGTGAACCTGCCCCGGCCTCCGTCACAGCCCT|\\$  $\tt CTTCAGGGTAGCCTGCACAAGAATGAGCTCAGTGACCACTTGGATGCTATGGACTCCAACCTGGATAACCT$ GCAGACCATGCTGAGCAGCCACGGCTTCAGCGTGGACACCAGTGCCCTGCTGGACCTGTTCAGCCCCTCGGTGAC  $\tt CCCCAGGCCTCCCGAGGCAGAAGAACAGCCCGGATTCAGGGAAGCAGCTGGTGCACTACACAGCGCAGCCGCT$ GTTCCTGCTGGACCCCGGCTCCGTGGACACCGGGAGCAACGACCTGCCGGTGCTGTTTGAGCTGGGAGAGGGCTC CTACTTCTCCGAAGGGGACGCTTCGCCGAGGACCCCACCATCTCCCTGCTGACAGGCTCGGAGCCTCCCAAAGC CAAGGACCCCACTGTCTCCTAGAGGCCCCGGAGGAGCTGGGCCAGCCGCCCACCCCCAGCCCAGTGCAGGGCTG GTCTTGGGGAGGCAGGCAGCCTCGCGGTCTTGGGCACTGGTGGGTCGGCCGCCATAGCCCCAGTAGGACAAACG GGCTCGGGTCTGGGCAGCACCTCTGGTCAGGAGGGTCACCCTGGCCTGCCAGTCTGCCTTCCCCCAACCCCGTGT CCTGTGGTTTGGTTGGGGCTTCACAGCCACACCTGGACTGACCCTGCAGGTTGTTCATAGTCAGAATTGTATTTT AGACAGGCAGAGATCTATAAACAGACAGGCTCT

CTGGCAGAGATGCCCATGGTGGGCAGGATGAGCACACAGGAGCGGCTGAAGCATGCCCAGAAGCGGCGCCCCAG CAGGTGAAGATGTGGGCCCAGGCTGAGAAGGAGGCCCCAGGGCAAGAAGGGTCCTGGGGAGCGTCCCCGGAAGGAG GACCTGGAAGAAGTCCGCCAGTTCCTTGGGAGTGGGGTCAGCCCTGACTTGGCCAACGAGGACGGCCTGACGGCC  $\tt CTGCACCAGTGCTGCATTGATGATTTCCGAGAGATGGTGCAGCAGCTCCTGGAGGCTGGGGCCAACATCAATGCC$ TGTGACAGTGAGTGCTGGACGCCTCTGCATGCTGCGGCCACCTGCGCACCTGCACCTGGTGGAGCTGCTCATC GCCAGTGGCGCCAATCTCCTGGCGGTCAACACCGACGGGAACATGCCCTATGACCTGTGTGATGATGAGCAGACG CTGGACTGCCTGGAGACTGCCATGGCCGACCGTGCCATCACCCAGGACAGCATCGAGGCCGCCCGGGCCGTGCCA GAACTGCGCATGCTGGACGACATCCGGAGCCGGCTGCAGGCCGGGGCAGACCTCCATGCCCCCTGGACCACGGG GCCACGCTGCTGCACGTCGCAGCCGCCAACGGGTTCAGCGAGGCGGCTGCCCTGCTGCTGGAACACCGAGCCAGC XXXGAGGTGCGGGCCAAGCTTCTGGAACTGAAACACAAGCACGACGCCCTCCTGCGCGCCCAGAGCCGCCAGCGC TCCTTGCTGCGCCGCCGCACCTCCAGCGCCGGCAGCCGGGAAGGTGGTGAGGCGGGTGAGCCTAACCCAGCGC ACCGACCTGTACCGCAAGCACGCCCAGGAGGCCATCGTGTGGCAACAGCCGCCGCCCACCAGCCCGGAGCCG CCCGAGGACAACGATGACCGCCAGACAGGCGCAGAGCTCAGGCCGCCGCCCCCGGAGGAGGACAACCCCGAAGTG GTCAGGCCGCACAATGGCCGAGTAGGGGGCTCCCCAGTGCGGCATCTATACTCCAAGCGACTAGACCGGAGTGTC TCCTACCAGCTGAGCCCCCTGGACAGCACCACCCCCCACACCCTGGTCCACGACAAGGCCCACCACACCCTGGCT GACCTGAAGCGCCAGCGAGCTGCCAAGCTGCAGCGACCCCCACCTGAGGGGCCCGAGAGCCCTGAGACAGCT  ${\tt CAGCACGGAAACCCCGGCTTCTACTGTACAGGACACTGGCCCCTCTCAGGTCAGAAGACATGCCTGGAGGGATGT}$ CTGGCTGCAAAGACTATTTTTATCCTGCAACTCTTGATAAAGGGCTGTTTTGCCATGG

ATGGTCACCATGGAGCCCGGGTACCTGTTCCTGGGTTCTCGCCTGGGCAATTCCCTCCTCCTCAAGTACACGGAG GTGGATGCGACGGCCGGCTGGTCAGCTGCGGGTAAGTCGGTGCCGCAGGATGAGGTGGACGAGATTGAAGTGTAC GGCAGCGAGGCCCAGTCGGGAACACAGCTGGCCACCTACTCCTTTGAGGTGTGTGACAGCATCCTGAACATTGGA CCCTGTGCCAATGCCGCCGTGGGCGAACCTGCCTTCCTCTAAAGAGTTTCAGAACAGCCCCGAGCCGGACCTG GAGATTGTGGTTTGCTCCGGCCACGGGAAGAACGGGGCTTTGTCGGTGCTGCAGAAGAGCATCCGGCCCCAGGTG GTGACAACATTTGAGCTTCCCGGCTGCTATGACATGTGGACAGTCATCGCCCCGGTGCGTAAGGAGGAGGAGGAC AATCCCAAGGGGGAGGCACAGAGCAGGACCCAGCACCCCTGAAGCAGACGACGACGCCGCAGACACGGA TTCCTGATTCTGAGCCGGGAAGACTCCACCATGATCCTGCAGACGGGGCAGGAGATCATGGAGCTGGACACCAGT GGCTTCGCCACTCAGGGCCCCACGGTCTTTGCTGGGAACATCGGGGACAACCGCTACATTGTCCAAGTGTCACCA CTGGGCATCCGCCTGCAGGAGGAGTGAATCAGCTGCACTTCATCCCCGTGGACCTGGGCGCCCCCATCGTGCAG TGCGCCGTGGCCGACCCCTATGTGGTCATCATGAGTGCCGAGGGCCACGTCACCATGTTCCTGCTGAAGAGTGAC TCCTACGGTGGCCGCCACCACCGCCTGGCGCTGCACAAGCCCCCGCTGCACCATCAGTCCAAGGTGATTACGCTG CGCAGTGGCCCGGAGGCCCGAGGGCCTCAGAGACTAGCCCCACAGTGGATGACGAGGAGGAGATGCTGTAT CCTGCACCCTTCCGGGCAGAGCCTACCCACTGGTGCCTGCTGGTGCGGGAGAATGGCACCATGGAGATCTACCAG CTTCCCGACTGGCGGCTGGTGTCCTGGTGAAGAACTTCCCTGTGGGGCAGCGGGTCCTTGTGGACAGCTCCTTT GGACAGCCCACTACACAGGGCGAGGCCCGCAGGGAGGAGGCCACGCGCCAGGGGGAGCTGCCCCTCGTCAAGGAG GTGCTGCTGGTGGCGCTGGGCAGCCGCCAGAGCCGCCCTACCTGCTGCTGCATGTGGACCAAGAGCTGCTTATC TACGAGGCCTTCCCCCACGACTCTCAGCTCGGCCAGGGCAATCTCAAAGTCCGCTTTAAGAAGGTCCCTCACAAC GCCCGGGGCCTCGTGGCGCGTTTCCGCTACTTCGAGGATATTTATGGCTACTCAGGGGTCTTCATCTGCGGCCCC TCCCCTCACTGGCTCTTGGTGACCGGCCGAGGGGCTCTGCGGCTACACCCCATGGCCATCGACGGCCCGGTCGAC AGTGTCCTGCCTACCTGTCCTATGATGCCCCATGGCCTGTCAGGAAGATCCCGCAGCGTTGCACGGCCCAC TATGTGGCTTACCACGTGGAGTTTAAGGTGTATGCTGTGGCCACCAGCACCACCACCGCGTGTGCCCGCATCCCA TTCTCCATCCAGCTCATCTCCCCGGTCAGCTGGGAGGCTATTCCCAATGCCAGGATCGAGCTGCAGGAGTGGGAG CATGTGACCTGCATGAAGACAGTGTCTCTGCGCAGTGAGGAGACCGTGTCGGGCCTCAAAGGCTACGTGGCCGCC GGGACCTGCCTCATGCAGGGGGAGGAGGTCACGTGCCGAGGGCGGATCTTGATCATGGATGTGATTGAGGTGGTG CCCGAGCCTGGCCAGCCCTTGACCAAGAACAAGTTCAAAGTCCTTTACGAGAAGGAGCAGAAGGGGCCCGTGACC GCCCTGTGCCACTGCAATGGCCACCTGGTGTCGGCCATCGGCCAGAAGATTTTCCTGTGGAGCCTGCGGGCCAGC GCAGCCGACGTCATGAAGAGCATTTCGCTGCTGCGCTACCAGGAGGAAAGCAAGACGCTGAGCCTGGTGTCGCGG GATGCCAAGCCCTGGAGGTGTACAGCGTGGACTTCATGGTGGACAATGCCCAGCTGGGTTTTCTGGTGTCTGAC CGCGACCGCAACCTCATGGTGTACATGTACCTGCCCGAAGCCAAGGAGAGTTTCGGGGGGCATGCGCCTGCTGCGT CGGGCAGACTTCCACGTGGGTGCCCACGTGAACACGTTTTTGGAGGACCCCGTGCCGGGGGGCCACTGAAGGGCTC AGCAAAAAGTCGGTCGTGTGGGAGAATAAGCACATCACGTGGTTTGCCACCCTGGACGGCGGCATCGGGCTGCTG GCCGGCCTCAACCCCGCGCCTTCCGGATGCTGCACGTGGACCGCCGCACCTCCAGAATGCCGTGCGCAACGTG CTGGATGGGGAGCTGCTCAACCGCTACCTGTACCTGAGCACCATGGAGCGCGAGGTAGCCAAGAAGATCGGC ACCACACCAGACATAATCCTGGACGACTTGCTGGAGACGGACCGCCTCACCCCCCACTTCTAGCCCCGTGGATGC CGTCACCACCACCACGGAACTACCTCCCACCCCTTTTTGTACAAAACACAAGGAAAAACATTTTTTGC

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## 2852/6881 FIGURE 2630

MYAVYKQAHPPTGLEFSMYCNFFNNSERNLVVAGTSQLYVYRLNRDAEALTKNDRSTEGKAHREKLELAASFSFF GNVMSMASVQLAGAKRDALLLSFKDAKLSVVEYDPGTHDLKTLSLHYFEEPELRDGFVQNVHTPRVRVDPDGRCA AMLVYGTRLVVLPFRRESLAEEHEGLVGEGQRSSFLPSYIIDVRALDEKLLNIIDLQFLHGYYEPTLLILFEPNQ TWPGRVAVRQDTCSIVAISLNITQKVHPVIWSLTSLPFDCTQALAVPKPIGGVVVFAVNSLLYLNQSVPPYGVAL NSLTTGTTAFPLRTQEGVRITLDCAQATFISYDKMVISLKGGEIYVLTLITDGMRSVRAFHFDKAAASVLTTSMV  ${\tt TMEPGYLFLGSRLGNSLLLKYTEKLQEPPASAVREAADKEEPPSKKKRVDATAGWSAAGKSVPQDEVDEIEVYGS}$ EAQSGTQLATYSFEVCDSILNIGPCANAAVGEPAFLSKEFQNSPEPDLEIVVCSGHGKNGALSVLQKSIRPQVVT TFELPGCYDMWTVIAPVRKEEEDNPKGEGTEQEPSTTPEADDDGRRHGFLILSREDSTMILQTGQEIMELDTSGF ATQGPTVFAGNIGDNRYIVQVSPLGIRLLEGVNQLHFIPVDLGAPIVQCAVADPYVVIMSAEGHVTMFLLKSDSY GGRHHRLALHKPPLHHQSKVITLCLYRDLSGMFTTESRLGGARDELGGRSGPEAEGLGSETSPTVDDEEEMLYGD SGSLFSPSKEEARRSSQPPADRDPAPFRAEPTHWCLLVRENGTMEIYQLPDWRLVFLVKNFPVGQRVLVDSSFGQ PTTQGEARREEATRQGELPLVKEVLLVALGSRQSRPYLLVHVDQELLIYEAFPHDSQLGQGNLKVRFKKVPHNIN FREKKPKPSKKKAEGGGAEEGAGARGLVARFRYFEDIYGYSGVFICGPSPHWLLVTGRGALRLHPMAIDGPVDSF APFHNVNCPRGFLYFNRQGELRISVLPAYLSYDAPWPVRKIPQRCTAHYVAYHVEFKVYAVATSTNTPCARIPRM TGEEKEFETIERDERYIHPQQEAFSIQLISPVSWEAIPNARIELQEWEHVTCMKTVSLRSEETVSGLKGYVAAGT CLMQGEEVTCRGRILIMDVIEVVPEPGQPLTKNKFKVLYEKEQKGPVTALCHCNGHLVSAIGQKIFLWSLRASEL TGMAFIDTQLYIHQMISVKNFILAADVMKSISLLRYQEESKTLSLVSRDAKPLEVYSVDFMVDNAQLGFLVSDRD RNLMVYMYLPEAKESFGGMRLLRRADFHVGAHVNTFWRTPCRGATEGLSKKSVVWENKHITWFATLDGGIGLLLP MQEKTYRRLLMLQNALTTMLPHHAGLNPRAFRMLHVDRRTLQNAVRNVLDGELLNRYLYLSTMERSEVAKKIGTT PDIILDDLLETDRVTAHF

AATGGACGAGAGAGGCGCCGTCCATTAGTTAGCGGCTCCGGAGCAACGCAGCCGTTGTCCTTGAGGCCGACGGG CGTTGTCTAGGGCCCGGAGGTGGGGCCGCGCCCTCGGGCGCTACGAACCCGGCAGGCCCACGCTTGGCTGCGGC CGGGTGCGGGCTGAGGCCATGGGCGACCGCGGCAGCTCCCGGCGCCGGAGGACAGGGTCGCGGCCCTCGAGCCAC GGCGGCGGGGCCTGCGGCGGAAGAGGAGGTGCGGGACGCCGCTGCGGGCCCCGACGTGGGAGCCGCGGGG GACGCGCCAGCCCCGGCCCCCAACAAGGACGGAGACGCCGGCGTGGGCAGCGGCCACTGGGAGCTGAGGTGCCAT ATGCTGATCTTGAGCAATGCCCGGTTATTTCTGGAGAACCTCATCAAGTATGGCATCCTGGTGGACCCCATCCAG  ${\tt GCCAACCTGGCCACCATTCTGTGTTTCCCAGCGGCTGTGGTCTTACTGGTTGAGTCTATCACTCCAGTGGGCTCCCAGTGGGCTCCCAGTGGGCCTCCCAGTGGCCCAGTGGCCCAGTGGCCCAGTGGCCCAGTGGCCCAGTGGGCCTCCCAGTGGCCCAGTGGCCCAGTGGCCCAGTGGCCCAGTGGCCCAGTGGCCCCAGTGGCCCCAGTGGCCCAGTGGCCCCAGTGGCCCCAGTGGCCCCAGTGGCCCCAGTGGCCCCAGTGGCCCCAGTGGCCCCAGTGGCCCCAGTGGCCCCAGTGGCCCCAGTGGCCCCAGTGGCCCCAGTGGCCCCAGTGGCCCCAGTGCCAGTGCCCAGTGCAGTG$ CTGCTGGCGCTGATGGCGCACACCATCCTCTTCCTCAAGCTCTTCTCCTACCGCGACGTCAACTCATGGTGCCGC AGGGCCAGGGCCAAGGCTGCCTCTGCAGGGAAGAAGGCCAGCAGTGCTGCCCCGCACACCGTGAGCTACCCG GACAATCTGACCTACCGCGATCTCTACTACTTCCTCTTCGCCCCCACCTTGTGCTACGAGCTCAACTTTCCCCGC TCTCCCCGCATCCGGAAGCGCTTTCTGCTGCGACGGATCCTTGAGATGCTGTTCTTCACCCAGCTCCAGGTGGGG CTGATCCAGCAGTGGATGGTCCCCACCATCCAGAACTCCATGAAGCCCTTCAAGGACATGGACTACTCACGCATC ATCGAGCGCCTCCTGAAGCTGGCGGTCCCCAATCACCTCATCTGGCTCATCTTCTACTGGCTCTTCCACTCC TGCCTGAATGCCGTGGCTGAGCTCATGCAGTTTGGAGACCGGGAGTTCTACCGGGACTGGTGGAACTCCGAGTCT GTCACCTACTTCTGGCAGAACTGGAACATCCCTGTGCACAAGTGGTGCATCAGACACTTCTACAAGCCCATGCTT CGACGGGCAGCAGCAAGTGGATGGCCAGGACAGGGGTGTTCCTGGCCTCGGCCTTCTTCCACGAGTACCTGGTG AGCGTCCCTCTGCGAATGTTCCGCCTCTGGGCGTTCACGGGCATGATGGCTCAGATCCCACTGGCCTGGTTCGTG GGCCGCTTTTTCCAGGGCAACTATGGCAACGCAGCTGTGTGGCTGTCGCTCATCATCGGACAGCCAATAGCCGTC CTCATGTACGTCCACGACTACTACGTGCTCAACTATGAGGCCCCAGCGGCAGAGGCCTGAGCTGCACCTGAGGGC CTGGCTTCTCACTGCCACCTCACACCCGCTGCCAGAGCCCACCTCTCCTCCTAGGCCTCGAGTGCTGGGGATGGG CCTGGCTGCACAGCATCCTCCTCTGGTCCCAGGGAGGCCTCTCTGCCCCTATGGGGCTCTGTCCTGCACCCCTCA GGGATGGCGACAGCAGGCCAGACACAGTCTGATGCCAGCTGGGAGTCTTGCTGACCCTGCCCCGGGTCCGAGGGT GTCAATAAAGTGCTGTCCAGTG

MGDRGSSRRRTGSRPSSHGGGGPAAAEEEVRDAAAGPDVGAAGDAPAPAPNKDGDAGVGSGHWELRCHRLQDSL FSSDSGFSNYRGILNWCVVMLILSNARLFLENLIKYGILVDPIQVVSLFLKDPYSWPAPCLVIAANVFAVAAFQV EKRLAVGALTEQAGLLLHVANLATILCFPAAVVLLVESITPVGSLLALMAHTILFLKLFSYRDVNSWCRRARAKA ASAGKKASSAAAPHTVSYPDNLTYRDLYYFLFAPTLCYELNFPRSPRIRKRFLLRRILEMLFFTQLQVGLIQQWM VPTIQNSMKPFKDMDYSRIIERLLKLAVPNHLIWLIFFYWLFHSCLNAVAELMQFGDREFYRDWWNSESVTYFWQ NWNIPVHKWCIRHFYKPMLRRGSSKWMARTGVFLASAFFHEYLVSVPLRMFRLWAFTGMMAQIPLAWFVGRFFQG NYGNAAVWLSLIIGQPIAVLMYVHDYYVLNYEAPAAEA

WO 2004/030615 PCT/US2003/028547

### 2855/6881 FIGURE 2633

MGRVIRGQRKGAGSVFRAHVKHRKGAARLRAVDFAERHGYIKGIVKDIIHDPGRGAPLAKVVFRDPYRFKKRTEL FIAAEGIHTGQFVYCGKKAQLNIGNVLPVGTMPEGTIVCCLEEKPGDRGKLARASGNYATVISHNPETKKTRVKL PSGSKKVISSANRAVVGVVAGGGRIDKPILKAGRAYHKYKAKRNCWPRVRGVAMNPVEHPFGGGNHQHIGKPSTI RRDAPAGRKVGLIAARRTGRLRGTKTVQEKEN

WO 2004/030615 PCT/US2003/028547

### 2857/6881 FIGURE 2635

MGRVIRGQRKGAGSVFRAHVKHRKGAARLRAVDFAERHGYIKGIVKDIIHDPGRGAPLAKVVFRDPYRFKKRTEL FIAAEGIHTGQFVYCGKKAQLNIGNVLPVGTMPEGTIVCCLEEKPGDRGKLARASGNYATVISHNPETKKTRVKL PSGSKKVISSANRAVVGVVAGGGRIDKPILKAGRAYHKYKAKRNCWPRVRGVAMNPVEHPFGGGNHQHIGKPSTI RRDAPAGRKVGLIAARRTGRLRGTKTVQEKEN

## 2859/6881 FIGURE 2637

TTTTCCTGGGGGCAGCAGCCGGCTGAGAGGGAGAGTGGCTGTCTACTCTCTCCGCCATGGCGTGTGTCCGCCAC TGATGTCGCTGTACTCCGAAAAGGGGGAGTCATCTGGCAAAAATGTCACTTAGCCCGCTGTATTCAAGGCTCCTA TAGCAGGTCATCGGACCAGCACTGAGTCTTGGGGTACTGGCAGAGCTGTGGCTCGAATTCCCAGAGTTCGAGGTG  ${\tt GTGGGACTCACCGCTCCGGCCAGGGTGCTTTTGGAAAC} {\tt ATG} {\tt TGTCGTGGAGGCCGAAGGTTTGCACCAAACAAAA}$ CCTGGCGCCGTTGGCATCGTAGAGTGAACACAACCCAAAAACGGTATGCCATCTGTTCTGCCCTGGCTGCCTCAG CCCTACCAGCACTGGTCATGTCTAAAGGTCATCGTATTGAGGAAGTTCCTGAACTTCCTTTGGTAGTCGAAGATA AAGTTGAAGGCTACAGGAAGACCAAGGAAGCTGTTTTGCTCCTTAAGAAACTTAAAGCCAGGAACGATATCAAAA CGTGCATCATCTATAATGAGGATAATGGTATCAAGGCCTTCAGAAACATCCCTGCAATTACTCTGCTTAATGTAA  ${\tt GCAAGCTGACCATTTCGAAGCTTGCTCCTGGTGGGCACGTTGGGACGTTTCTGCATTTGGACTGGAAGTGCTTTCC}$ GGAAGTTGGATGAATTGTATGGCACTTGGCGTAAAGCCGCTTCCCTCAAGAGTAACTACAATCTTCCCATGCACA AGATTCATCGCAGAGTCCTAAAGAAGAACCCACTGAAAAACTTGAGAATCATGTTGAAGCTAAACCCATATGCAA  $A {\tt GAAGGCTGCTGTTGGTGAAGAAGCAGAAGAAGCCTCTGGTGGGAAAAAAGGCAGCTACCAAGAAATCAG}$ CCCCTGAAAAGAAGCCTGCAGAAAAGAAACCTACTGTAGAGGAAAAGAAGCCTGCTGCATTAACTCTTAAATTTG  ${\tt ATTATTCCATAAAGGTCAAATCATTGTGGACAGCTTCTTTTGAA} {\tt TAAA} {\tt AGACCTGATTATACAGGCAGTGAGAAAC}$ Α

MCRGGRRFAPTKTWRRWHRRVNTTQKRYAICSALAASALPALVMSKGHRIEEVPELPLVVEDKVEGYRKTKEAVL LLKKLKARNDIKKVYASQRMRAGKGKMRNRRRIQRRGPCIIYNEDNGIKAFRNIPAITLLNVSKLTISKLAPGGH VGRFCIWTGSAFRKLDELYGTWRKAASLKSNYNLPMHKMINTDLSRILKSPEIQRAFRAPSKKIHRRVLKKNPLK NLRIMLKLNPYAKTMRRNTILRQARNHKLRMDKAAAAAAALEAKPDEKAAVAGKKPVVGKKGKKAAVGVKKQKKP LVGKKAAATKKSAPEKKPAEKKPTVEEKKPAALTLKFDYSIKVKSLWTASFE

AGTGGCGGTGTCTGTGATGGTCCGGAGCGAGGCCTCGGCCAATCTGGGTGGCGTGCCCAGCGAGATTAAAGATGC AGTACGCCACGGGGCCACTGCTCAAGTTCCAGATTTGTGTTTCCTGAGGTTATAGGCGGGTGTTTGAGGAGTACA ACATAGCATCTTTCCTGTCAGTCTTCAAACTAGTATTAATAGGCTTAATAATTGTTGGCAAGGATCCTTTTGCTT TCTTTGGCATGCAAGCTCCTAGCATCTGGCAGTGGGGCCAAGAAAATAAGGTCTATGCATGTATGATGGTTTTCT TCTTGAGCAACATGATTGAGAACCAGTGTATGTCAACAGGTGCATTTGAGATAACTTTAAATGATGTACCTGTGT GGTCTAAGCTGGAATCCGGTCACCTTCCATCCATGCAACAGCTTGTTCAAATTCTTGACAATGAAATGAAGCTCA ATGTGCATATGGATTCAATCCCACCATCGATCATAGCACCACCTATCAGCACTGAAAACTCTTTTGCATTAAG GGATCATTCCAAGAGCAGCTTGACTGACATTATGAAGGCCTGTACTGAAGAGAGCCAGCTGTTAGTACAGACCAA ATGCTTTCTTAGCATGCTCGTTGTACCTCTTGGAAAACCTCAATGCAAGATAGCTTTTCCGTGCTGGCATATTTT GGAATTCTTCACATTCATGGAGTGCAATAATACTGTATAGCTTTCCCCACCCCCACACAATCACCCAGTTAATG TGTGTTTTTTTAAGGTAGACATTACTACTTGTAACTTTTTTCCTTAGTCGTATTTGAAAAAGTAGAAAATTGA GTTACAATTTGATTTTTTCCAAAGATGTCTGTTAAATCTGTTGTGCTTTTATATGAATATTTGTTTTTTATAG TTTAAAATTCATCCTTTGGGAATCCAGTTGAAGTTCCCAAATACTTTATAAGAGTTTATCAGACATCTCTAATTT GGCCATGTCCAGTTTATATAGTTTACAAAATACAGCAGATGCAAGATTATGGGGGAAATCCTATATTCAGAGTAC TCTACAAATTTTTGTGTATGTGTGTATGTGCGTGTGATTACCAGAGAACTACTAAAAAAACCAACTGCTTTTTAA ACTAAATAAAAAACTAAGCAGATATGAGTT

# 2865/6881 FIGURE 2643

CSTPRGHCSSSRFVFPEGYRRVFEEYMWVTSQGYPDIRIEGENYLPQPMYRHIASFLSVFKLVLIGLIIVGKDPF AFFGMQAPSIWQWGQENKVYACMMVFFLSNMIENQCMSTGAFEITLNDVPVWSKLESGHLPSMQQLVQILDNEMK LNVHMDSIPHHRS

## 2866/6881 FIGURE 2644

TATTTTTTCCTTTTTAGGATAGAATTTTTGCGGCATTTGAAGAGCTTTTTCCAGATTATGTTTAAAATTGAAAC  ${\tt CAAGCCATGTGGTGAAGAACTCAAGGGTGGGGATAAAGTGCTGATGACCTGTGTTGGCATTGGTTTCTCCAACCT}$ TAGCAAGACCCTCAAGTGATAACCATCACAAGATAAGGCCCCCAATGCCTACAGACAAAGCAGAAGCTGCCACGGA CACCAATGGGACCAAGTCCAAATGGATTAATCCAGGACAGAATAGCCACTTGCTTAATTTTCTGTGAAGAAATAT CAATATACAAATAAAAGACATCCCTGTAGCATATGGTTTCCAGCTGTTTCTCCAGTGGCATTGCCCAGG AGGGGCCCAGTCACCATGAGAGCTCCCTTGCCTTACCTGGAGGAAGAATGTGCCTTCAGGCCACAGTCGTGCTGC TAGAACAGTCTCGTAGCTGCAGTTCAGCTGTGCTTCCTCAGCCTACTATCATAGGCTTCCTCAGCCCTCTGTCAT GTTGTAGGGATTAAATGAGATAATATGAGTGGCAGCTCTTCATGAGTCCTGCAGTGCTAAGCAAATGTCAGAAAT TGGTGTATTAGACTATTTATCTTTGATCTTCTGAATGGATTGCTGTCATGGACACGGACACGGATCTTCATCTGG TTCATTGTATTTATATGTGAGGGATGGATGGCTGCGGGGCTCCAAGAGCAGCCTCCTGAAGTGAGGGTGGCAAGT ATGTGACAGGGCACCCACAAAGGCAGACAAGGACTCTGAGAACCAACAGGACTTCTCTGGTCTTATTCTGAGGCT AAGACAAAAACCGCACCTGAGCCAGATCTCTCAGCCTGGCAGCTCCAGGACCCGTGGGCCCTGCCACTGGCCCAT TACAAGGACCTATGGCTGCACTTGTTGATACTTTCCCGAGGAGCCACAACACTGAGCAATGAGGGGAGGAGCATG TGTTAGTTCATCAAGTCCTAAATGTTAACTACTATGTGCCAGGTGCTGAGCCAGGCACCAGAGATACCATG ATGAACAAGACACATAAATCTTACCCTCATTGAGCTTACACCATGTGAAAGAGAAGTATGAAATAATTATACGTT CTGCAACCTCTGCCTCCCAGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGCACCTG  ${\tt CCACCATGCCTGGCTAAATTTTGTATTTTTAGTAGAGACGGGCTTTCACCATGTTGGTCAGGCTAGTCTTGAACT}$ CCTGGCCTCAGGTGATCCTCCCACCTTGGCCTCCCAAAGTGCTGGGATTGCAGGCGTGAGCCACGGCACCTCACA AATTACACATTATTCAACTGTAACTGTGAAAGTGATTCTAAGGAAAAAGTACAGAGAGCTGTGGGAAAACATAAT AGGAAATCTTTGTCATTCTGTCACTATTGTCTATTAGGCTGTCACTGTTGTCATTGTCACCCCTACCCTCTCGCA GAGAGTGGTTCCCATTTGCCAGAGCTCATTTATTGTCCTGAAGGTCTGTGAAAAGATGACAAAGTCGTGTTGCCT TCTTTCCACTTTCCCAAGTCTCACGTGAGCACCCCTAACTGGCAGAATCAATTCACACCCACAAGCCTAGCTGCA AGGGGACCTGGGAAATGTATTCCCAGCTTTCCAACCTCTCCACCCAGGAGATGAAACAGCCAATTTAGGCCAGGT GCAATGGCTTACACATGTAAAACCAGCACTATGGGAGGCTGAGGAGGGAAGATTACTTGAGCCCAGGAGTTTGAG ACCAGCCTGGACAACAGGGCGAGACCATCATCTCTACAAAAAATACAAAAAAATTAGCTAGGCGTGGTGTCCTG TGCCTGTGGTCCCAGCTCCTCAGGAGGCTGAGGCAGGAGGATCGCTTGAGATCGAGGCTGCAGTGAGCCGTGATC GCGCCACTGCACTCCAGTCTGGGTGACAGCGAGACCCTATCTCAAAAAAG

### 2868/6881 FIGURE 2646

CTCAGCTACGCAGGGTGCAACTTCTTGCGCCAACGTCTGGTCCTGTCTACCCTGAGCGGGCGCCCCGTCAAAATC CGAAAGATTCGGGCCAGAGACGACAACCCGGGCCTCCGAGATTTTGAAGCCAGCTTCATAAGGCTATTGGACAAA ATAACGAATGGTTCTCGAATTGAAATAAACCAAACAGGAACAACCTTATATTATCAGCCTGGCCTCCTGTATGGT GGATCTGTGGAACATGACTGTAGCGTCCTTCGTGGCATTGGGTATTACCTGGAGAGTCTTCTTTGCTTGGCTCCA TTTATGAAGCACCCGTTAAAAATAGTTCTACGAGGAGTGACCAATGATCAGGTTGACCCTTCAGTTGATGTTCTT AAGGCAACAGCACTCCCTTTGTTGAAACAATTTGGGATTGATGGTGAATCATTTGAACTGAAGATTGTGCGACGG GGAATGCCTCCCGGAGGAGGAGGCGAAGTGGTTTTCTCATGTCCTGTGAGGAAGGTCTTGAAGCCCATTCAACTC ACAGATCCAGGAAAAATCAAACGTATTAGAGGAATGGCGTACTCTGTACGTGTCACCTCAGATGGCGAACCGG ATTGTGGATTCTGCAAGGAGCATCCTCAACAAGTTCATACCTGATATCTATATTTACACAGATCACATGAAAGGA GTCAACTCTGGGAAGTCTCCGGGCTTTGGGTTGTCACTGGTTGCTGAGACCACCAGTGGCACCTTCCTCAGTGCT GAACTGGCCTCCAACCCCCAGGGCCAGGGAGCAGCAGTACTTCCAGAGGACCTTGGCAGGAACTGTGCCCGGCTG AGCTTTTTCCAGATTATGTTTAAAATTGAAACCAAGCCATGTGGTGAAGAACTCAAGGGTGGGGATAAAGTGCTG ATGACCTGTGTTGGCATTGGTTTCTCCAACCTTAGCAAGACCCTCAAGTGATAACCATCACAAGATAAGGCCCCA ATGCCTACAGACAAAGCAGAAGCTGCCACGGACACCAATGGGACCAAGTCCAAATGGATTAATCCAGGACAGAAT AGCCACTTGCTTAATTTTCTGTGAAĞAAATATCAATATACAAATAAAAGACATCCCTGTAGCATATGGTTTCCAG CTGTTTCTCCAGTGGCATTGCCATTGCCCAGGAGGGGCCCAGTCACCATGAGAGCTCCCTTGCCTTACCTGGAGG AAGAATGTGCCTTCAGGCCACAGTCGTGCTAGCAACAGTCTCGTAGCTGCAGTTCAGCTGTGCTTCCTCAGCC GCAAGGACTCACCTCCTTGAGCCTTGGTTTTTGTTGTAGGGATTAAATGAGATAATATGAGTGGCAGCTCTTCAT GAGTCCTGCAGTGCTAAGCAAATGTCAGAAATTGGTGTATTAGACTATTTATCTTTGATCTTCTGAATGGATTGC **AAGTAAGTTATTGGGATGTTTTTATATTCCAGGTGTGCTGTACATTCTTATTTTATTTTCACAATAGCTCTGTGA** TGTAAGTGCTATCTCCATGAGAAAATTCATAAAGGGTGTTTTGTTCCTTTGAAATGTATAATGTAAAGACATTAA **ATCTCCTCATTTA** 

# 2869/6881 FIGURE 2647

CGCCGCAGCTCCAGCCGCCGCAGCAGCCGCCGCCGCCGCCCTCTCCTTAGTCACTGCCATGACGACCGCGTCCAC
CTCGCAGGTGCGCCAGAACTACCACCAGGACTCAAGAGGCCGCCATCAACCGCCAGATCAACCTGGAGCTCTACAC
CTCCTACCTTTACCTGTCCACGTCTTACTACTTTGACCTCGATGATGTGGCTTTGAAGAACTTTGCCAAATACTT
TCTTCACCAATCTCATGAGGAGAGAGGGAACATGCTGAGAAACTGTTGAAGCTGCAGAACCAACGAGGTGGCCGAAT
CCTTCTTCAGGATATCAAGAAACCAGACTGTGATGACTGGGAGAGTGGGCTGAATGCGATGGAGTGTGCACTACA
TTTGGAAAAAAATGTGTATCAGTCACCACTGGAACTGCACAAACCGGCCACTGACAAAAATGCCATCAAAGAATG
GGGTGACCACGTGACCAACTTGTGCAAGATGGGAGCACCCGAATCTGGCTTGGCAGAATATCTCTTTGACAAGCA
CTCCCTGGGAGACAGTGATAATGAAAGCTAAGCCTCAGGCTAATTTCCCCATAGCCGTGGGTGACTTCCCTGGT
CACCAAGGCAGTGCATGCATGTTGGG

# 2870/6881 FIGURE 2648

 $\label{thm:likeloop} {\tt MTTASTSQVRQNYHQDSEAAINRQINLELYTSYLYLSTSYYFDLDDVALKNFAKYFLHQSHEEREHAEKLLKLQN} \\ {\tt QRGGRILLQDIKKPDCDDWESGLNAMECALHLEKNVYQSPLELHKPATDKNAIKEWGDHVTNLCKMGAPESGLAE} \\ {\tt YLFDKHSLGDSDNES} \\$ 

.ATGCCATCCGTTGCAGTTGATCCACAACCGAGTGTGGTGACTCGGGTGGTCAACCTGCCCTTGGTGAGCTCCACG GAGAACGGTGTGAAGACCATCACCTCCGTGGCCATGACCAGTGCTCTGCCCATCATCCAGAAGCTAGAGCCGCAA ATTGCAGTTGCCAATACCTATGCCTGTAAGGGGCTAGACAGGATTGAGGAGAGACTGCCTATTCTGAATCAGCCA TCAACTCAGATTGTTGCCAATGCCAAAGGCGCTGTGACTGGGGCAAAAGATGCTGTGACGACTACTGTGACTGGG GCCAAGGATTCTGTGGCCAGCACGATCACAGGGGTGATGGACAAGACCAAAGGGGCAGTGACTGGCAGTGTGGAG AAGACCAAGTCTGTGGTCAGTGGCAGCATTAACACAGTCTTGGGGAGTCGGATGATGCAGCTCGTGAGCAGTGGC GAAGCAAAAAAAGTTGAAGGATTTGATCTGGTTCAGAAGCCAAGTTATTATGTTAGACTGGGATCCCTGTCTACC AAGCTTCACTCCCGTGCCTACCAGCAGGCTCCAGCAGGCTTAAAGAAGCCAAAAAAAGCCAACAGACCATT TCTCAGCTCCATTCTACTGTTCACCTGATTGAATTTGCCAGGAAGAATGTGTATAGTGCCAATCAGAAAATTCAG GATGCTCAGGATAAGCTCTACCTCTCATGGGTAGAGTGGAAAAGGAGCATTGGATATGATGATACTGATGAGTCC CACTGTGCTGAGCAATTTGAGTCACGTACTCTTGCAATTGCCCGCAACCTGACTCAGCAGCTCCAGACCACGTGC CACACCCTCCTGTCCAACATCCAAGGTGTACCACAGAACATCCAAGATCAAGCCAAGCACATGGGGGTGATGGCA GGCGACATCTACTCAGTGTTCCGCAATGCTGCCTCCTTTAAAGAAGTGTCTGACAGCCTCCTCACTTCTAGCAAG GGGCAGCTGCAGAAAATGAAGGAATCTTTAGATGACGTGATGGATTATCTTGTTAACAACACGCCCCTCAACTGG CTGGTAGGTCCCTTTTATCCTCAGCTGACTGAGTCTCAGAATGCTCAGGACCAAGGTGCAGAGATGGACAAGAGC AGCCAGGAGACCCAGCGATCTGAGCATAAAACTCAT**TAA** 

MASVAVDPQPSVVTRVVNLPLVSSTYDLMSSAYLSTKDQYPYLKSVCEMAENGVKTITSVAMTSALPIIQKLEPQ IAVANTYACKGLDRIEERLPILNQPSTQIVANAKGAVTGAKDAVTTTVTGAKDSVASTITGVMDKTKGAVTGSVE KTKSVVSGSINTVLGSRMMQLVSSGVENALTKSELLVEQYLPLTEEELEKEAKKVEGFDLVQKPSYYVRLGSLST KLHSRAYQQALSRVKEAKQKSQQTISQLHSTVHLIEFARKNVYSANQKIQDAQDKLYLSWVEWKRSIGYDDTDES HCAEQFESRTLAIARNLTQQLQTTCHTLLSNIQGVPQNIQDQAKHMGVMAGDIYSVFRNAASFKEVSDSLLTSSK GQLQKMKESLDDVMDYLVNNTPLNWLVGPFYPQLTESQNAQDQGAEMDKSSQETQRSEHKTH

MKLNISFPATGCQKLIEVDDERKLRTFYEKRMATEVAADALGEEWKGYVVRISGGNDKQGFPMKQGVLTHGRVRL LLSKGHSCYRPRRTGERKRKSVRGCIVDANLSVLNLVIVKKGEKDIPGLTDTTVPRRLGPKRASRIRKLFNLSKE DDVRQYVVRKPLNKEGKKPRTKAPKIQRLVTPRVLQHKRRRIALKKQRTKKNKEEAAEYAKLLAKRMKEAKEKRQ EQIAKRRRLSSLRASTSKSESSOK

 $\verb|CCTCCCTACGGGGCGCCTCCGGCAGCCCTTCCCGCGTGCGCAGGGCTCAGAGCCGTTCCGAGATCTTGGAGGTCCG|\\$ GGTGGGAGTGGGGTGGGGGTGGGGGTGAAGGTGGGGGGCGGCGCCCTCAGGGAAGGCGGGTGCGCCCC CCTCTGGTGCCAAAGGGCGCGCAGCGGCTGCCGAGCTCGGCCCTGGAGGCGGCGAGAACATGGTGCGCAGGTTC TTGGTGACCCTCCGGATTCGGCGCCGCGGGCCCGCCGAGTGAGGGTTTTCGTGGTTCACATCCCGCGGCTC ACGGGGGAGTGGGCAGCGCCAGGGGCGCCGCCGCTGTGGCCCTCGTGCTGATGCTACTGAGGAGCCAGCGTCTA GGGCAGCAGCCGCTTCCTAGAAGACCAGGTCATGATGATGGGCAGCGCCCGAGTGGCGGAGCTGCTGCTCCA  $\tt CGGCGCGGAGCCCAACTGCGCCGACCCGGCCACTCTCACCCGACCCGTGCACGACGCTGCCCGGGAGGGCTTCCT$ GGACACGCTGGTGGTGCTGCACCGGGCCGGGGCGGGCGGCTGGACGTGCGCGATGCCTGGGGCCGTCTGCCCGTGGA CCATGCCCGCATAGATGCCGCGGAAGGTCCCTCAGACATCCCCGATTGAAAGAACCAGAGAGGCTCTGAGAAACC CGTAGTTTTCATTTAGAAAATAGAGCTTTTAAAAATGTCCTGCCTTTTAACGTAGATATATGCCTTCCCCCACTA CCGTAAATGTCCATTTATATCATTTTTTATATATTCTTATAAAAATGTAAAAAAGAAAAACACCGCTTCTGCCTT TTCACTGTGTGGAGTTTTCTGGAGTGAGCACTCACGCCCTAAGCGCACATTCATGTGGGCATTTCTTGCGAGCC  ${\tt TCGCAGCCTCCGGAAGCTGTCGACTTCATGACAAGCATTTTGTGAACTAGGGAAGCTCAGGGGGGTTACTGGCTT}$ 

MGRGRCVGPSLQLRGQEWRCSPLVPKGGAAAAELGPGGGENMVRRFLVTLRIRRACGPPRVRVFVVHIPRLTGEW AAPGAPAAVALVLMLLRSQRLGQQPLPRRPGHDDGQRPSGGAAAAPRRGAQLRRPRHSHPTRARRCPGGLPGHAG GAAPGRGAAGRARCLGPSARGPG

### 2877/6881 FIGURE 2655

CCCAACCTGGGGCGACTTCAGGTGTGCCACATTCGCTAAGTGCTCGGAGTTAATAGCACCTCCTCCGAGCACTCG CTCACGGCGTCCCCTTGCCTGGAAAGATACCGCGGTCCCTCCAGAGGATTTGAGGGACAGGGTCGGAGGGGGCTC GCCTTCGGCTGACTGGCTACGCCACGGCCGCGGCCCGGGGTCGGGTAGAGGAGGTGCGGGCGCTGCTGGAGGCGGG GGCGCTGCCCAACGCACCGAATAGTTACGGTCGGAGGCCGATCCAGGTCATGATGATGGCCAGCCCCCGAGTGGC GGAGCTGCTGCTCCACGGCGCGGAGCCCAACTGCGCCGACCCCGCCACTCTCACCCGACCCGTGCACGACGC TGCCCGGGAGGCTTCCTGGACACGCTGGTGCTGCTGCACCGGGCCGGGCGCGGCTGGACGTGCGCATGCCTG GGGCCGTCTGCCCGTGGACCTGGCTGAGGAGCTGGGCCATCGCGATGTCGCACGGTACCTGCGCGCGGCTGCGGG GGGCACCAGAGGCAGTAACCATGCCCGCATAGATGCCGCGGAAGGTCCCTCAGACATCCCCGAT**TGA**AAGAACCA GAGAGGCTCTGAGAAACCTCGGGAAACTTAGATCATCAGTCACCGAAGGTCCTACAGGGCCACAACTGCCCCCGC CACAACCCACCCGCTTTCGTAGTTTTCATTTAGAAAATAGAGCTTTTAAAAATGTCCTGCCTTTTAACGTAGAT ATATGCCTTCCCCCACTACCGTAAATGTCCATTTATATCATTTTTTATATATTCTTATAAAAAATGTAAAAAAGAA AAACACCGCTTCTGCCTTTTCACTGTGTTGGAGTTTTCTGGAGTGAGCACTCACGCCCTAAGCGCACATTCATGT GGGCATTTCTTGCGAGCCTCGCAGCCTCCGGAAGCTGTCGACTTCATGACAAGCATTTTGTGAACTAGGGAAGCT CAGGGGGGTTACTGGCTTCTCTTGAGTCACACTGCTAGCAAATGGCAGAACCAAAGCTCAAATAAAAATAAAATA ATTTTCATTCATTCACTC

MEPAAGSSMEPSADWLATAAARGRVEEVRALLEAGALPNAPNSYGRRPIQVMMMGSARVAELLLLHGAEPNCADP ATLTRPVHDAAREGFLDTLVVLHRAGARLDVRDAWGRLPVDLAEELGHRDVARYLRAAAGGTRGSNHARIDAAEG PSDIPD

# 2880/6881 FIGURE 2658

 ${\tt MMMGSARVAELLLHGAEPNCADPATLTRPVHDAAREGFLDTLVVLHRAGARLDVRDAWGRLPVDLAEELGHRDV} \\ {\tt ARYLRAAAGGTRGSNHARIDAAEGPSDIPD}$ 

GCAGTAGTGCTAGCGGCTTCACGGTTCGGTCCTCGGACCCGGCAGCCGCCACTGGTGCTGAGCTGTTAGGAAGCC GGTTGAAGCAGATTGCCCAGGAAAGCCGTTCACTGGTGGGCTTAACACGGAAACAAATGAGAAAGCTCTTGAAGC AGTATTTGGCAAATATGGACGAATAGTGGAAGTACTCTTGGTGAAAGACCATGAAACCAACAAATCAGGAGGATT TGCTTTTGTCACCTTTGAAAGCCCAGCAGATGCTAAGGATGCAGCCAGAGACATGAATGGAAAGTCATTAGATGG AAAAGCCATCGAGGTGGAACAAGCCAACAAACCATCATTTGAAAGTGGTAGACGTGGACCGCCTCCACCTCCAAG AGGACACATGGATGACGGTGGATATTCCATGAATTTTAACATGAGTTCTTCCAGGGGACCACATCCAGTAAAAAG AGGACCACCAGAGAGTGGGAGTCCTCCTTCTAAGAGATCTGCACCTTCAGGACCAGTTCGCAGTAGCAGTGA AATGGGAGGAAGAGTCCTGTATCACGTGGAAGAGATAGTTACGGAGGTCCACCTCGAAGGGAACTGCTGCCCTC TTGTAGAAATGATTATTTGTCCCCAAGAGATGATGGGTATTCTACTAAAGACAGCTATTCAAGCAGAGATTACCC AAGTTCTCATGATACTAGAGCTTATGCACCACCACCACGAGATTATACTTACCGTGATTATGGTCATTCCAGTTC AGGTGGAGGTTCCTACAGAGATTCATATGAGAGTTATGGTAACTCACGTAGTGCTCCACCTACACGAGGGCCCCC ACCATCTTATGGTGGAAGCAGTCGCTATGATGATTACAGCAGCTCATGTGACGGATATGGTGGAAGTCGAGACAG TGTGGAGGAAGCCGATCTGATAGAGGGGGAGGTAGAAGCAGATACTAGAAACAAAACTTTGGACCAAAATC CCAGTTCAAAGAACAAAAAGTGGAAGCTATTCTATCATAACTACCCAAGGACTACTAAAAGGAAAAATTGTGTT ACTTTTTAAAAATTCCCTGTTAAGTTCCCCTCCATAATTTTTATGTTCTTGTGAGGAGAAAAGTAAAACATGTTT AATTTTATTTTGACTTTTGCATTGCTTTTCAACAAGCAAACGTTAAATGTGTTAAGACTTGTACTGGTGTTGTAA AGGGTGGTTGGGGTATGCTACTCATAAGATTTCAGGGTGTCTTCCAACTGAAATCTCAATGTTTTCAGTATGAAA AACCTGAAATCACATGCCTTTGTAAGGAAAGTGCTATTCACCCAGTAAACCCAAAAAAGCAAATGGATGCTG GCCATTTTGCCTTTCTGACATTTCCTTGGGAATCTGCAAGAACCTCCCTTTCCCCCTCCCCCAATAAGACCATTT AAGTGTGTTTAAACAACTACAGAATACTAAATAAAAAGTTTGGCCAAAACC

CGGTAACTACCCCGGCTGCGCACAGCTCGGCGCTCCTTCCCGCTCCCTCACACACCGCCTCAGCCCGCACCGGCA GTAGAAGAAGAAACAACTTACTACGATGTTTTTGGGGGTCAAACCCAATGCTACTCAGGAAGAATTGAA TTCTCAAGCTTACGAAGTTCTCTCTGATGCAAAGAAAAGGGAATTATATGACAAAGGAGGAGAACAGGCAATTAA GCAGAGAGAAAGGAGGGTAAAAATGTTGTACATCAGCTCTCAGTAACCCTAGAAGACTTATATAATGGTGCAAC AAGAAAACTGGCTCTGCAAAAGAATGTGATTTGTGACAAATGTGAAGGTAGAGGAGGTAAGAAAGGAGCAGTAGA GTGCTGTCCCAATTGCCGAGGTACTGGAATGCAAATAAGAATTCATCAGATAGGACCTGGAATGGTTCAGCAAAT AAGGAAGATAGTTCGAGAGAAGAAATTTTAGAAGTTCATATTGACAAAGGCATGAAAGATGGCCAGAAGATAAC ATTCCATGGTGAAGGAGCCAAGAACCAGGACTGGAGCCAGGCGATATTATCATTGTGTTAGATCAGAAGGACCA TGCTGTTTTTACTCGACGAGAGAGACCTTTTCATGTGTATGGACATACAGCTCGTTGAAGCACTGTGTGGCTT CCAGAAGCCAATATCTACTCTTGACAACCGAACCATCGTCATCACCTCTCATCCAGGTCAGATTGTCAAGCATGG AGATATCAAGTGTGTACTAAATGAAGGCATGCCAATTTATCGTAGACCATATGAAAAGGGTCGCCTAATCATCGA ATTTAAGGTAAACTTTCCTGAGAATGGCTTTCTCTCTCTGATAAACTGTCTTTGCTGGAAAAACTCCTACCCGA GAGGAAGGAAGTGGAAGAGACTGATGAGATGGACCAAGTAGAACTGGTGGACTTTGATCCAAATCAGGAAAGACG <u>A</u>TGGCCAGTGAATAACACTCACTGCTGGCATTTAATGTGCAGTAGTGAATGAGTGAAGGACTGTAATCATAATAT  ${\tt GCTCACTACTTGCTCTTGTTTTTGTTTTAATAAACTATAGTAGTGTTATAAAAAGTTAAATGAAGAATAAACGCA}$ **AATATAAAAGCTC** 

### 2883/6881 FIGURE 2661

MVKETTYYDVLGVKPNATQEELKKAYRKLALKYHPDKNPNEGEKFKQISQAYEVLSDAKKRELYDKGGEQAIKEG GAGGGFGSPMDIFDMFFGGGGRMQRERRGKNVVHQLSVTLEDLYNGATRKLALQKNVICDKCEGRGGKKGAVECC PNCRGTGMQIRIHQIGPGMVQQIQSVCMECQGHGERISPKDRCKSCNGRKIVREKKILEVHIDKGMKDGQKITFH GEGDQEPGLEPGDIIIVLDQKDHAVFTRRGEDLFMCMDIQLVEALCGFQKPISTLDNRTIVITSHPGQIVKHGDI KCVLNEGMPIYRRPYEKGRLIIEFKVNFPENGFLSPDKLSLLEKLLPERKEVEETDEMDQVELVDFDPNQERRRH YNGEAYEDDEHHPRGGVQCQTS

### 2884/6881 FIGURE 2662

TAGTCGGGCGGGTTGTGAGACGCCGCGCTCAGCTTCCATCGCTGGGCGGTCAACAAGTGCGGGCCTGGCTCAGC GCGGGGGGCGCGGAGACCGCGAGCCGGGAGCGGCTGCGTTCCCGGCTGCGCCCTTCGGCCAGGCCGG GCGGGCATGACCGACCACCAGGGGCGCCGCCGCCGCGCGCTCGCAGGCCGCGATGAAGAAAAACCCGGCGCC CGACCCAGAGTGAGGAGGCGACCCAGGGCGAAGAGATGAATCGGAGCCAGGAGGTGACCCGGGACGAGGAGTCGA CCCGGAGCGAGGAGGTGACCAGGGAGAAATGGCGGCAGCTGGGCTCACCGTGACTGTCACCCACAGCAATGAGA AGCACGACCTTCATGTTACCTCCCAGCAGGGCAGCAGTGAACCAGTTGTCCAAGACCTGGCCCAGGTTGTTGAAG AGGTCATAGGGGTTCCACAGTCTTTTCAGAAACTCATATTTAAGGGAAAATCTCTGAAGGAAATGGAAACACCGT TGTCAGCACTTGGAATACAAGATGGTTGCCGGGTCATGTTAATTGGGAAAAAGAACAGTCCACAGGAAGAGGTTG AACTAAAGAAGTTGAAACATTTGGAGAAGTCTGTGGAGAAGATAGCTGACCAGCTGGAAGAGTTGAATAAAGAGC TTACTGGAATCCAGCAGGGTTTTCTGCCCAAGGATTTGCAAGCTGAAGCTCTCTGCAAACTTGATAGGAGAGTAA AAGCCACAATAGAGCAGTTTATGAAGATCTTGGAGGAGATTGACACACTGATCCTGCCAGAAAATTTCAAAGACA GTAGATTGAAAAGGAAAGGCTTGGTAAAAAAGGTTCAGGCATTCCTAGCCGAGTGTGACACAGTGGAGCAGAACA TCTGCCAGGAGACTGAGCGGCTGCAGTCTACAAACTTTGCCCTGGCCGAG<u>TGA</u>GGTGTAGCAGAAAAAGGCTGTG  $\tt CTGCCCTGAAGAATGGCGCCACCAGCTCTGCCGTCTCTGGATCGGAATTTACCTGATTTCTTCAGGGCTGCTGGG$ GGCAACTGGCCATTTGCCAATTTTCCTACTCTCACACTGGTTCTCAATGAAAAATAGTGTCTTTGTGATTTGAGT AAAGCTCCTATTCTGTTTTTCACAAAAAAAAAAAAA

LAQRGGARRPRGDRERLGSRLRALRPGREPRQSEPPAQRGPPPSRRPPARSTASGHDRPTRGAAAGARRPRMKKK TRRRSTRSEELTLSEEATWSEEATQSEEATQGEEMNRSQEVTRDEESTRSEEVTREEMAAAGLTVTVTH SNEKHDLHVTSQQGSSEPVVQDLAQVVEEVIGVPQSFQKLIFKGKSLKEMETPLSALGIQDGCRVMLIGKKNSPQ EEVELKKLKHLEKSVEKIADQLEELNKELTGIQQGFLPKDLQAEALCKLDRRVKATIEQFMKILEEIDTLILPEN FKDSRLKRKGLVKKVQAFLAECDTVEQNICQETERLQSTNFALAE.

GGGGAAGTCGAGGCGGAGTGACTCTGCTTCCGTTTCTGGTTTTGCTCTAGTGTTTTGGGTTTCTTCGCGGCTGCT CAAG<u>ATG</u>AACCGACTCTTCGGGAAAGCGAAACCCAAGGCTCCGCCGCCCAGCCTGACTGGCTGCATTGGCACGGT GGACAGTAGAGCAGAATCCATTGACAAGAAGATTTCTCGATTGGATGCTGAGCTAGTGAAGTATAAGGATCAGAT CAAGAAGATGAGAGGGTCCTGCAAAGAATATGGTCAAGCAGAAAGCCTTGCGAGTTTTAAAGCAAAAGAGGAT GTATGAGCAGCGGGACAATCTTGCCCAACAGTCATTCAACATGGAACAAGCCAATTATACCATCCAGTCTTT GATCGACCAGATTGAGGATTTACAAGACCAGCTAGAGGATATGATGGAAGATGCAAATGAAATCCAAGAAGCACT GAGTCGCAGTTATGGCACCCCAGAACTGGATGAAGATGATTTAGAAGCAGAGTTGGATGCACTAGGTGATGAGCT TCTGGCTGATGAAGACAGTTCTTATTTGGATGAGGCAGCATCTGCACCTGCAATTCCAGAAGGTGTTCCCACTGA TACAAAAAACAAGGATGGAGTTCTGGTGGATGAATTTGGATTGCCACAGATCCCTGCTTCA**TAG**ATTTGCATCAT TCAAGCATATCTTGTAAAACAAACACATATTATGGGACTAGGAAATATTTATCTTTCCAAATTTGCCATAACAGA TTTAGGTTTCTTTCCTTTCTTTGAAGGAAAGTTTAATTACATTGCTCTTTTATTTTTTCCATTAAGAGACTCATT GCTTGGGAAATGCTTTCTTCGTACTAAAATTTGATTCCTTTTTTTCTTATGAAAAACGAACTCAGTTTAAAAAGTA TTTTTAGCTCGTATGACTTGTTTTCATTCATTAATAATAATTTGAAATAAAACTAAGGAAATGGAATCTTAAAAG TCTATGACAGTGTAACTCTACAGTCTCAAAATGACCTGATAAATTGATAAGACAAAGATGAGATTATTGGGGCTG TTGTTGTGTCTTGTGAACAAGTCGTTACTGTGTCCATTATTGGAATGGAATTATCACTACTGTATCATGAGTGGG TATTTTGATTCTATGGTTCCCTCAGTATTACATCTTGACTTGTAATCAATTATGAATATTTCTTGATATTTAATG AAAAAAAA

# 2887/6881 FIGURE 2665<sup>2</sup>

MNRLFGKAKPKAPPPSLTGCIGTVDSRAESIDKKISRLDAELVKYKDQIKKMREGPAKNMVKQKALRVLKQKRMY EQQRDNLAQQSFNMEQANYTIQSLKDTKTTVDAMKLGVKEMKKAYKQVKIDQIEDLQDQLEDMMEDANEIQEALS RSYGTPELDEDDLEAELDALGDELLADEDSSYLDEAASAPAIPEGVPTDTKNKDGVLVDEFGLPQIPAS

TGCTCGCTGCGCCACCGCCACCCCTGCCCGCCACAGCGCCGCCGCCTGCCCGCCATCGGTCGACA GAAGGAGCTGGTGTCCCGCTGCGGGGAGATGCTCCACATCCGCTACCGGCTGCTCCGACAGGCGCTGGCCGAGTG CCTGGGGACCCTCATCCTGGTGATGTTTGGCTGTGGCTCCGTGGCCCAGGTTGTGCTCAGCCGGGGCACCCACGG TGGTTTCCTCACCATCAACCTGGCCTTTGGCTTTGCTGTCACTCTGGGCATCCTCATCGCTGGCCAGGTCTCTGG GGCCCACCTGAACCCTGCCGTGACCTTTGCCATGTGCTTCCTGGCTCGTGAGCCCTGGATCAAGCTGCCCATCTA CACCCTGGCACAGACGCTGGGAGCCTTCTTGGGTGCTGGAATAGTTTTTTGGGCTGTATTATGATGCAATCTGGCA  ${\tt TGACCCCTACAACAACCCCGTCCCCCGAGGCCTGGAGGCCTTCACCGTGGGCCTGGTGGTCCTTGGCACCGTGGCCTGGTGGTCCTGGTCATTGGCACCGTGGGCCTGGTGGTCCTGGTCATTGGCACCGTGGGCCTGGTGGTCCTGGTCATTGGCACCGTGGGCCTGGTGGTCCTGGTCATTGGCACCGTGGGCCTGGTGGTCCTGGTCATTGGCACCGTGGGCCTGGTGGTCCTGGTCATTGGCACCGTGGGCCTGGTGGTCCTGGTCATTGGCACCGTGGGCCTGGTGGTCCTGGTCATTGGCACCGTGGTCCTGGTCATTGGCACCGTGGGCCTGGTGGTCCTGGTCATTGGCACCGTGGGCCTGGTGGTCCTGGTCATTGGCACCGTGGGCCTGGTGGTCCTGGTCATTGGCACCGTGGGCCTGGTGGTCCTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGTGGTCATTGGCACCGTGGGCCTGGGCCTGGTGGTCATTGGCACCGTGGGCCGGCCTGGGCCTGGGCCTGGGCCCTGGGCCTGGGCCCTGGGCCCTGGGCCCTGGGCCCTGGGCCCTGGGCCCTGGGCCCTGGGCCCTGGGC$ CTCCATGGGCTTCAACTCCGGCTATGCCGTCAACCCTGCCCGGGACTTTGGCCCCCGCCTTTTTACAGCCCTTGC CATTGCGGGTGTCTTCGTGTACCAGCTGATGATCGGCTGCCACCTGGAGCAGCCCCCACCCTCCAACGAGGAAGA GAATGTGAAGCTGGCCCATGTGAAGCACAAGGAGCAGATC<u>TGA</u>GTGGGCAGGGGCCATCTCCCCACTCCGCTGCC CTGGCCTTGAGCATCCACTGTCCAAGGGCCACTCCCAAGAAGCCCCCTTCACGATCCACCCTTTCAGGCTA  ${\tt AGGAGCTCCCTATCTACCCCTACCCCACGAGACAGCCCCTTCAGGATTTCCACTGGACCTTGCCCAAATAGCACC}$ TTAGGCCACTGCCCCTAAGCTGGGGTGGAACCGGAATTTGGGTCAATACATCCTTTTGTCTCCCCAAGGGAAGAGA GGGGGGTTCCCAGATATTCAGGGCAAGGGACCAGTCGGAAGGGATTCTGGCTATTGGGGGAGCCCAGAGACAGGG GAGCTGCAGATAGATATGTGTTTCT

MGRQKELVSRCGEMLHIRYRLLRQALAECLGTLILVMFGCGSVAQVVLSRGTHGGFLTINLAFGFAVTLGILIAG QVSGAHLNPAVTFAMCFLAREPWIKLPIYTLAQTLGAFLGAGIVFGLYYDAIWHFADNQLFVSGPNGTAGIFATY PSGHLDMINGFFDQFIGTASLIVCVLAIVDPYNNPVPRGLEAFTVGLVVLVIGTSMGFNSGYAVNPARDFGPRLF TALAGWGSAVFTTGQHWWWVPIVSPLLGSIAGVFVYQLMIGCHLEQPPPSNEEENVKLAHVKHKEQI

CGCGCTCCCTGCCTCGCTGCCGGGGGGGGGGGGGGGAAGCCCGGAAGCCCGGGTGGCCCGAGGGCGCGA GTCCACAGGAGGCACCCCATGTGCAGTACGAGCGCCTGGGCTCTGACGTGACACTGCCATGTGGGACAGCAAACT GGGATGCTGCGGTGACGTGGCGGGTAAATGGGACAGACCTGGCCCCTGACCTGCTCAACGGCTCTCAGCTGGTGC TCCATGGCCTGGAACTGGGCCACAGTGGCCTCTACGCCTGCTTCCACCGTGACTCCTGGCACCTGCGCCACCAAG  ${\tt TCCTGCTGCATGTGGGCTTGCCGCGGGGGGCCTGTGCTCAGCTGCCGCTCCAACACTTACCCCAAGGGCTTCT}$ ACTGCAGCTGGCATCTGCCCACCCCACCTACATTCCCAACACCTTCAATGTGACTGTGCTGCATGGCTCCAAAA TTATGGTCTGTGAGAAGGACCCAGCCCTCAAGAACCGCTGCCACATTCGCTACATGCACCTGTTCTCCACCATCA AGTACAAGGTCTCCATAAGTGTCAGCAATGCCCTGGGCCACAATGCCACAGCTATCACCTTTGACGAGTTCACCA TTGTGAAGCCTGATCCTCCAGAAAATGTGGTAGCCCGGCCAGTGCCCAGCAACCCTCGCCGGCTGGAGGTGACGT ACATTATCCAGGTGGCAGCCAAGGACAATGAGATTGGGACATGGAGTGACTGGAGCGTAGCCGCCCACGCTACGC  ${\tt CCTGGACTGAGGAACCGCGACACCTCACCACGGAGGCCCAGGCTGCGGAGACCACCAGCACCACCACCTCCC}$ TGGTCAGCGTCCCCATCACTCTGGCCCTGGCTGCCGCCACTGCCAGCAGTCTCTTGATCTGAGCCCGGC ACCCCATGAGGACATGCAGAGCACCTGCAGAGGAGCAGGAGGCCGGAGCTGAGCCCGGGTTTCTATT TTGCACACGGGCAGGACCTTTTGCATTCTCTCAGACACAATTTGTGGAGACCCCGGCGGGCCCGGGCCTGC CACCAAAGACCCCTCACCCTGGCCCCTTGGGCTGGACCCTCCAATGCCAGCGACTCCCAGGAGCCCTTGGGGGA CGTGAGGGGAGCCTCTCACATCCGATTTCTCCTCCTGCCCCAGCCTCCTGTCTATCCCAGGGTCTCTGTTGCCAC CATCAGATTATAAGCTCCTGATGCTGGGGGGGCCCAGCCATCCCCCTCCCCCCAGCACCCACAATTTTCAGTCCC CTCCCCTCTGCCCTGTTTTGTATACCCCTCCCTGACCCTGCTCCTATCCCACAGTATTTAATGCCCTGTCAGTC CCTTCTAGTCTGACTCAATGGTAACTTGCTGTATTTGAATTTTTTATAGATGTATATACAGGGTGGGGGGGAGTGG 

# 2891/6881 FIGURE 2669

MAAPVPWACCAVLAAAAAVVYAQRHSPQEAPHVQYERLGSDVTLPCGTANWDAAVTWRVNGTDLAPDLLNGSQLV LHGLELGHSGLYACFHRDSWHLRHQVLLHVGLPPREPVLSCRSNTYPKGFYCSWHLPTPTYIPNTFNVTVLHGSK IMVCEKDPALKNRCHIRYMHLFSTIKYKVSISVSNALGHNATAITFDEFTIVKPDPPENVVARPVPSNPRRLEVT WQTPSTWPDPESFPLKFFLRYRPLILDQWQHVELSDGTAHTITDAYAGKEYIIQVAAKDNEIGTWSDWSVAAHAT PWTEEPRHLTTEAQAAETTTSTTSSLAPPPTTKICDPGELGSGGGPSAPFLVSVPITLALAAAAATASSLLI

 $\tt CTCCGAGGCCGTGAGCGCAAAGCCTCAGGCCCCGGCTCCCTCGTGAGCTGCCGCGGGCCGCCGCCGGGG\underline{A}$ TGCAGTGGGCCGTGGGCCGGCGTGGGCCGCGCTGCTCCTGGCTGTCGCAGCGGTGCTGACCCAGGTCG TCTGGCTCTGGCTGGGTACGCAGAGCTTCGTCTTCCAGCGCGAAGAGATAGCGCAGTTGGCGCGGCAGTACGCTG GGCTGGACCACGAGCTGGCCTTCTCTCGTCTGATCGTGGAGCTGCGGCGGCTGCACCCAGGCCACGTGCTGCCCG ACGAGGAGCTGCAGTGGGTGTTCGTGAATGCGGGTGGCTGGATGGGCCCATGTGCCTTCTGCACGCCTCGCTGT  $\verb|CCGAGTATGTGCTGCTCTTCGGCACCGCCTTGGGCTCCCGCGGCCACTCGGGCCGCTACTGGGCTGAGATCTCGGGCTGAGATCAGAT$ ATACCATCATCTCTGGCACCTTCCACCAGTGGAGAGAGGGCACCACAAAAGTGAGGTCTTCTACCCAGGGGAGA  ${\tt GCGTCATCCCATCCACCCTGGCCTTCGCGCTGGCCGACACTGTCTTCAGCACCCAGGACTTCCTCACCCTCTTCT}$  $\verb|CCAGGCCTGAAGGAAGACCTGCGGATGGACAGGAGCGGGCAGCCCGCACATATCCACTTGCTGGAGCCCATGTTT| \\$ ACAGACAGGGACATACACCATGCAGATCCTGAGTTCCTGCTGTATGAGCAGGGATATCCATGCTTATGTATCCAA ACACAGAGACCCATGGGAACAAATGAGACACATATAGATACTGAGACCTGTGTGTACAGTAGGACCATGCACTCA CACTAACTGAGGCCTTTCCATAGCTCCACAGCTTCCCACCTCCTCCCCACCAAACCGGGGTTCTAGAGTTAAGGA TGGGGGAGGGTATTATACTGCCTCAGTCTGACTCCTCAACCCAGCAGCAATTTGAGGGGATGAGGGGGAAGAGGA GCTGCCTTTTGGAGGCCCCCTTCACCTGCAGCTATGATGCCCTTCCCCCTTCTCCCCTGTCCTCACCATATGCCTT ATCCCCATTCTACTCCCCTGCTATGCAAGTGCCCCTGTGGCTTGTCCCCAACCCCTCAGCAACAAGCTCAGCT GGGGAACGAGAGTAATTTGAAGAATGCTTGAAGTCAGCGTCTTCCATTCCAGAAAGACCCCCATTCTTCCTTTGG GGGTATGATGTGGAAGCTGGTTTCAGCCCAGGACCCACCACTGAGGAGAGGATCTAGACAGGTGGGCCTAATTCC 

# 2893/6881 FIGURE 2671

MQWAVGRRWAWAALLLAVAAVLTQVVWLWLGTQSFVFQREEIAQLARQYAGLDHELAFSRLIVELRRLHPGHVLP DEELQWVFVNAGGWMGAMCLLHASLSEYVLLFGTALGSRGHSGRYWAEISDTIISGTFHQWREGTTKSEVFYPGE TVVHGPGEATAVEWGPNTWMVEYGRGVIPSTLAFALADTVFSTQDFLTLFYTLRSYARGLRLELTTYLFGQDP

## 2894/6881 FIGURE 2672

#### 2895/6881 FIGURE 2673

CTGCCACTGCCACCTCGCGGATCAGGAGCCAGCGTTGTTCGCCCGACGCCTCGCTGCCGGTGGGAGGAAGCGAGA AGCCGATTCAAAAGGTGATGACCTATCAACAGCCATTCTCAAACAGAAGAACCGTCCCAATCGGTTAATTGTTGA TGACACAGTGTTGCTGAAAGGAAAGAAGAAGACGAGAAGCTGTTTGCATCGTCCTTTCTGATGATACTTGTTCTGA TGAGAAGATTCGGATGAATAGAGTTGTTCGGAATAACCTTCGTGTACGCCTAGGGGATGTCATCAGCATCCAGCC ATGCCCTGATGTGAAGTACGGCAAACGTATCCATGTGCTGCCCATTGATGACACAGTGGAAGGCATTACTGGTAA TCTCTTCGAGGTATACCTTAAGCCGTACTTCCTGGAAGCGTATCGACCCATCCGGAAAGGAGACATTTTTCTTGT  ${\tt CCGTGGTGGGATGCGTGTGGAGTTCAAAGTGGTGGAAACAGATCCTAGCCCTTATTGCATTGTTGCTCCAGA}$ TGACATTGGTGGCTGCAGGAAGCAGCTAGCTCAGATAAAGGAGATGGTGGAACTGCCCCTGAGACATCCTGCCCT CTTTAAGGCAATTGGTGTGAAGCCTCCTAGAGGAATCCTGCTTTACGGACCTCCTGGAACAGGAAAGACCCTGAT TGCTCGAGCTGTAGCAAATGAGACTGGAGCCTTCTTCTTCTTGATCAATGGTCCTGAGATCATGAGCAAATTGGC TGGTGAGTCTGAGAGCAACCTTCGTAAAGCCTTTGAGGAGGGCTGAGAAGAATGCTCCTGCCATCATCTTCATTGA TGAGCTAGATGCCATCGCTCCCAAAAGAGAGAAAACTCATGGCGAGGTGGAGCGGCGCATTGTATCACAGTTGTT CCCAGCTCTACGGCGATTTGGTCGCTTTGACAGGGAGGTAGATATTGGAATTCCTGATGCTACAGGACGCTTAGA GATTCTTCAGATCCATACCAAGAACATGAAGCTGGCAGATGATGTGGACCTGGAACAGGTAGCCAATGAGACTCA  $\tt CGGGCATGTGGGTGCTGACTTAGCAGCCCTGTGCTCAGAGGCTGCTCTGCAAGCCATCCGCAAGAAGATGGATCT$ CATTGACCTAGAGGATGAGACCATTGATGCCGAGGTCATGAACTCTCTAGCAGTTACTATGGATGACTTCCGGTG GGCCTTGAGCCAGAGTAACCCATCAGCACTGCGGGAAACCGTGGTAGAGGTGCCACAGGTAACCTGGGAAGACAT CGGGGGCCTAGAGGATGTCAAACGTGAGCTACAGGAGCTGGTCCAGTATCCTGTGGAGCACCCAGACAAATTCCT GAAGTTTGGCATGACACCTTCCAAGGGAGTTCTGTTCTATGGACCTCCTGGCTGTGGGAAAACTTTGTTGGCCAA AGCCATTGCTAATGAATGCCAGGCCAACTTCATCTCCATCAAGGGTCCTGAGCTGCTCACCATGTGGTTTGGGGA GTCTGAGGCCAATGTCAGAGAAATCTTTGACAAGGCCCGCCAAGCTGCCCCCTGTGTGCTATTCTTTGATGAGCT GGATTCGATTGCCAAGGCTCGTGGAGGTAACATTGGAGATGGTGGTGGGGCTGCTGACCGAGTCATCAACCAGAT  $\verb|CCTGACAGAAATGGATGGCATGTCCACAAAAAAAAATGTGTTCATCATTGGCGCTACCAACCGGCCTGACATCAT|\\$ TGATCCTGCCATCCTCAGACCTGGCCGTCTTGATCAGCTCATCTACATCCCACTTCCTGATGAGAAGTCCCGTGT TGCCATCCTCAAGGCTAACCTGCGCAAGTCCCCAGTTGCCAAGGATGTGGACTTGGAGTTCCTGGCTAAAATGAC TAATGGCTTCTCTGGAGCTGACCTGACAGAGATTTGCCAGCGTGCTTGCAAGCTGGCCATCCGTGAATCCATCGA GAGTGAGATTAGGCGAGAACGAGAGAGGCAGACAAACCCATCAGCCATGGAGGTAGAAGAGGATGATCCAGTGCC TGAGATCCGTCGAGATCACTTTGAAGAAGCCATGCGCTTTGCGCGCCGTTCTGTCAGTGACAATGACATTCGGAA GTATGAGATGTTTGCCCAGACCCTTCAGCAGAGTCGGGGCTTTGGCAGCTTCAGATTCCCTTCAGGGAACCAGGG TGGAGCTGGCCCCAGTCAGGGCAGTGGAGGCGGCACAGGTGGCAGTGTATACACAGAAGACAATGATGATGACCT GTATGGC<u>TAA</u>GTGGTGGTGGCCAGCGTGCAGTGAGCTGGCCTGGACCTTGTTCCCTGGGGGTGGGGGCGCT TGCCCAGGAGAGGGACCAGGGGTGCGCCCACAGCCTGCTCCATTCTCCAGTCTGAACAGTTCAGCTACAGTCTGA CTCTGGACAGGGGGTTTCTGTTGCAAAAATACAAAACAAAAGCGATAAAATAAAAGCGATTTTCATTTGGTAGGC GGAGAGTGAATTACCAACAGGGAATTGGGCCTTGGGCCTATGCCATTTCTGTTGTAGTTTGGGGCAGTGCAGGGG ACCTGTGTGGGGTGTGAACCAAGGCACTACTGCCACCTGCCACAGTAAAGCATCTGCACTTGACTCAATGCTGCC CGAGCCCTCCCCTATCCAACCTGGGTAGGTGGGTAGGGGCCACAGTTGCTGGATGTTATATAGAGAGT AGGTTGATTTATTTTACATGCTTTTGAGTTAATGTTGGAAAACTAATCACAAGCAGTTTCTAAACCAAAAAATGA CATGTTGTAAAAGGACAATAAACGTTGGGTCAAAATGG

MASGADSKGDDLSTAILKQKNRPNRLIVDEAINEDNSVVSLSQPKMDELQLFRGDTVLLKGKKRREAVCIVLSDD
TCSDEKIRMNRVVRNNLRVRLGDVISIQPCPDVKYGKRIHVLPIDDTVEGITGNLFEVYLKPYFLEAYRPIRKGD
IFLVRGGMRAVEFKVVETDPSPYCIVAPDTVIHCEGEPIKREDEEESLNEVGYDDIGGCRKQLAQIKEMVELPLR
HPALFKAIGVKPPRGILLYGPPGTGKTLIARAVANETGAFFFLINGPEIMSKLAGESESNLRKAFEEAEKNAPAI
IFIDELDAIAPKREKTHGEVERRIVSQLLTLMDGLKQRAHVIVMAATNRPNSIDPALRRFGRFDREVDIGIPDAT
GRLEILQIHTKNMKLADDVDLEQVANETHGHVGADLAALCSEAALQAIRKKMDLIDLEDETIDAEVMNSLAVTMD
DFRWALSQSNPSALRETVVEVPQVTWEDIGGLEDVKRELQELVQYPVEHPDKFLKFGMTPSKGVLFYGPPGCGKT
LLAKAIANECQANFISIKGPELLTMWFGESEANVREIFDKARQAAPCVLFFDELDSIAKARGGNIGDGGGAADRV
INQILTEMDGMSTKKNVFIIGATNRPDIIDPAILRPGRLDQLIYIPLPDEKSRVAILKANLRKSPVAKDVDLEFL
AKMTNGFSGADLTEICQRACKLAIRESIESEIRRERERQTNPSAMEVEEDDPVPEIRRDHFEEAMRFARRSVSDN
DIRKYEMFAQTLQQSRGFGSFRFPSGNQGGAGPSQGSGGGTGGSVYTEDNDDDLYG

GGCTTCTGGGAGCGACCGCTCCGCTCGTTGGTTCCGGAGGTCGCTGCGGCGGTGGGAA<u>ATG</u>CTGGCGCGC GCGGCGCGGGCACTGGGGCCCTTTTGCTGAGGGGCTCTCTACTGGCTTCTGGCCGCGCTCCGCGCCGCCCTCC TCTGGATTGCCCCGAAACACCGTGGTACTGTTCGTGCCGCAGCAGGAGGCCTGGGTGGTGGAGCGAATGGGCCGA  $\tt TTCCACCGGATCCTGGAGCCTGGTTTGAACATCCTCATCCCTGTGTTAGACCGGATCCGATATGTGCAGAGTCTC$  ${\tt AAGGAAATTGTCATCAACGTGCCTGAGCAGTCGGCTGTGACTCTCGACAATGTAACTCTGCAAATCGATGGAGTC}$ - CTTTACCTGCGCATCATGGACCCTTACAAGGCAAGCTACGGTGTGGAGGACCCTGAGTATGCCGTCACCCAGCTA GCCAGCATTGTGGATGCCATCAACCAAGCTGCTGACTGCTGGGGTATCCGCTGCCTCCGTTATGAGATCAAGGAT ATCCATGTGCCACCCCGGGTGAAAGAGTCTATGCAGATGCAGGTGGAGGCAGAGCGGCGGAAACGGGCCACAGTT  $\verb|CTAGAGTCTGAGGGGACCCGAGAGTCGGCCATCAATGTGGCAGAAGGGAAGAAACAGGCCCAGATCCTGGCCTCC||$ GAAGCAGAAAAGGCTGAACAGATAAATCAGGCAGCAGGAGAGGCCAGTGCAGTTCTGGCGAAAGGCCAAGGCTAAA GAGCAGTATGTCAGCGCGTTCTCCAAACTGGCCAAGGACTCCAACACTATCCTACTGCCCTCCAACCCTGGCGAT GTCACCAGCATGGTGGCTCAGGCCATGGGTGTATATGGAGCCCTCACCAAAGCCCCAGTGCCAGGGACTCCAGAC TCACTCTCCAGTGGGAGCAGCAGAGATGTCCAGGGTACAGATGCAAGTCTTGATGAGGAACTTGATCGAGTCAAG TCCCTGCCAAGATTTTGGTTTTTATTTTTTTTTTTATTTGAACTTTAGTCGTGTAATAAACTCACCAGTGGCAAACCTG ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

# 2898/6881 FIGURE 2676

MLARAARGTGALLLRGSLLASGRAPRRASSGLPRNTVVLFVPQQEAWVVERMGRFHRILEPGLNILIPVLDRIRY VQSLKEIVINVPEQSAVTLDNVTLQIDGVLYLRIMDPYKASYGVEDPEYAVTQLAQTTMRSELGKLSLDKVFRER ESLNASIVDAINQAADCWGIRCLRYEIKDIHVPPRVKESMQMQVEAERRKRATVLESEGTRESAINVAEGKKQAQ ILASEAEKAEQINQAAGEASAVLAKAKAKAEAIRILAAALTQHNGDAAASLTVAEQYVSAFSKLAKDSNTILLPS NPGDVTSMVAQAMGVYGALTKAPVPGTPDSLSSGSSRDVQGTDASLDEELDRVKMS

#### 2899/6881 FIGURE 2677

# 2900/6881 FIGURE 2678

 ${\tt MAGAVSLLGVVGLLLVSALSGVLGDRANPDLRAHPGNAAHPGSGATEPRRRPPLKDQRERTRAGSLPLGALYTAA}\\ {\tt VAAFVLYKCLQGKDETAVLHEEASKQQPLQSGGFSRSLCWVGGV}$ 

AGTGTCGATCCCTCAGCCAGGGCATGGAGCTCTCCTGCCCCGGTTCGCGGTGCCCGGTGCAAGAGCAGCGTGCCC GCTGGGAGCGGAAACGCGCCTGCACCGCCCGGGAGCTGCTAGAGACCGAGCGGCGCTACCAAGAACAGCTGGGGC TGGTGGCCACGTACTTTTTGGGGATCCTGAAAGCCAAGGGGACCCTGCGACCACCTGAGCGCCAGGCCCTGTTTG GCTCCTGGGAGCTCATCTACGGCGCCAGCCAGGAGCTGCTTCCCTACCTGGAAGGAGGATGCTGGGGCCAAGGGC TGGAGGGCTTCTGCCGCCACTTGGAGCTCTATAACCAATTTGCTGCCAACTCAGAGAGGTCCCAGACCACCCTGC AGGAGCAGCTAAAGAAAAATAAAGGTTTCCGGAGGTTTGTACGGCTTCAGGAAGGCCGCCCTGAGTTTGGGGGGCC TTCAGCTCCAGGACCTGCTCCCTCTGCCAACGGCTCCAGCAGTATGAGAATCTCGTCGTAGCTTTGGCTG AAAACACAGGTCCCAACAGCCCTGACCATCAACAGCTCACACCTGTCCTTCCCTCATGAGAAGCTACTGCTTATG TCCACAGACCAGGAGGAGCTGTCACGCTGGTACCACAGTCTGACTTGGGCTATCAGCAGCCAGAAAAACTAGAGG AATCTTATAGATTCCAGAACTCAGGATACCTCAGGGATAGGTCACAGCCAAGAGTACAAAGGAATCTTCAGTACT GAACAAAACAGAACCCTTCATGATTTGACAAAGGTCACTTTCTGTTTGCCTGGACCAAGCTACTCCAGATCATCT GACCAACTCTTAAAAATCACGGCCAGGCACAGTGGCTCATGCCTGTAATCCCAGCACTTTGGGAAGCAGAGGTGG AAAATAATTAAGAAATTTTATTAAAAAAGAAGAATCAGGAAACCAAGTCCAACCCAACTAAACCTCAAATGAACC AGCCCCTAACACAGATGAGGGGATTTGGGACTGATAAGCTCTGTGCTGTGTCCATGGCCCGTCATTTATCAAGGC AGTTTTTTTTTTTTTTTTTTGGGAAAGACCCTTCTGTCTCAGTTTTGCTATGAGAAAAGGGATTTTTTGGGCCCTGA ACGCGGGCATGCTGGTGGCCTCAGGAATACGAGGAAAAGAGCTGGAGCTCCCTCTATCTTCTCTGCTGTCACACT GGAAGGCAGCCTCTTTTTGTCCTAATAAGGACAGCTCTTCAAGAAGGCCCAGTTGTCCTTAGGCACCTAGTATGG GTGTGTACAACCAACTAGGATCGAAAAAACACACAGGAGCACTCCATCATGAAAAACAGACTTTGTTTTAGTCGAC CTTCAGCTGTCGTCCCTCCCTCCCAGCCAAGGCTGTGACTGGGGGCCCTTTGCCACAGCCTGGCTGCACCTTCTCC GTAGTCCCCGCCCCACCTCCCAGGAAGTAGCTAGGTTCCATGTCTCTGTGCTCCAGTTTGTGGGCTCCTCCCAGG CCTGACTGTCACCAATCTCCTCCTCGTCCTCTTTAAACAGAAGTCCTCAGGAAGAGGTCTGCTGGCCTCTGTGT GGGGAGAGATCAGGAATGTTCCAGTTTCAGAGACTTTGTCTCCACCTCCAGCAGACTCGCCTCCCGAGCCTTCAC CTGGTTCTGAAGCCTCCATATCCTTGTCCGGCTTGCTATCTTGCAGCAGCTCGTGGATGGTCCATAGCTTCATGT TCAGAAGCTCCTGCTGGGCTCCAGCCAGAGTAGTCACACTGAAGAAATGTCCACTCAGTGGCTCCCAACCTATGT CCCCATTCCTCCCTCCTGCCACAAATTCCCCAAAAATTCACAGAATCATTGCTCTCCTCACCGCTCAAAAAAGGGG CTCTGGGGATAAGGGAAAAAAGGGGGCAGAAGTGGTTATGTATCTTCTGCTGTCCCCTAAACTCCCCCGACCCAG TCTTTCCCCTGTTGTGGAAGAAGGAAAGGGCAGTACTGAAGCAACAAGGTTCTGCTCCATCACCTCAGTCTCCAG AGCCAGCCAAGAGAGAGTGCAATTTGAGATGGAGACAGTGATTGGGTTTTTACCTCAGAGAATCACAATCCTAGT CTATCTAGCTCCTCACCCAGCATATGAAGCGACGTCCTATGTCCCACACATGGTCAGTTTGCTGAAACACCTCCA GGAATGAGCAACTCCCTCCGGTTTGAAAAAAGCTCTGGTGGCTGAGTGCTGTGGCTCACACCTGTAATCCCAGCA CTTCGGGAAGCCAAGGGCCTCCTCCCAAGGAGAACATGAGACCACTTCATATCTGGAACTCTAGAAACACTGGCT GCAGCAATCAACCTCCTGTGCCAAGGCTGGCCCCACTCTTGTAGCATGGACACTGCTAGCTGGGTTCAAATCCCA GCTCCAGCAGTTGCCAGCGCTGGGTGACCTCGAGCAAGTGACTACTCCTCACTGGATTGTAGGAGAACTAAATGT GATAGTCATTATTTACAGTTCACCACACGCTCTTCACATCCGTTACCTCCCTGGATCCTCAAAATAACCTCATAA TATTGGAAGGCC

MDAIKKKMQMLKLDKENAIDRAEQAEADKKQAEDRCKQLEEEQQALQKKLKGTEDEVEKYSESVKEAQEKLEQAE KKATDAEADVASLNRRIQLVEEELDRAQERLATALQKLEEAEKAADESERGMKVIENRAMKDEEKMELQEMQLKE AKHIAEDSDRKYEEVARKLVILEGELERSEERAEVAESRARQLEEELRTMDQALKSLMASEEEYSTKEDKYEEEI KLLEEKLKEAETRAEFAERSVAKLEKTIDDLEETLASAKEENVEIHQTLDQTLLELNNL

#### 2904/6881 FIGURE 2682A

AAAGAAGCTGCCACC<u>ATC</u>GTTGCACTTTCACTGAAGATCAGCATTGGGAATGTGGTGAAGACGATGCAGTTTGAG CCGTCTACCATGGTGTACGACGCCTGCCGCATCATTCGTGAGCGGATCCCAGAGGCCCCAGCTGGTCCTCCCAGC GACTTTGGGCTCTTTCTGTCAGATGATGACCCCAAAAAGGGTATATGGCTGGAGGCTGGGAAAGCTTTGGACTAC ACTGTGAAGACGATCATGGTGGATGACTCTAAGACTGTCACTGACATGCTCATGACCATCTGTGCCCGCATTGGC ATCACCAATCATGATGAATATTCATTGGTTCGAGAGCTGATGGAAGAGAAAAAGGAGGAAATAACAGGGACCTTA AGAAAGGACAAGACATTGCTGCGAGATGAAAAGAAGATGGAGAAACTAAAGCAGAAATTGCACACAGATGATGAG TTGAACTGGCTGGACCATGGTCGGACACTGAGGGAGCAGGGTGTAGAGGAGCACGAGACGCTGCTGCGGAGG AAGTTCTTTTACTCAGACCAGAATGTGGATTCCCGGGACCCTGTACAGCTGAACCTCCTGTATGTGCAGGCACGA GATGACATCCTGAATGGCTCCCACCCTGTCTCCTTTGACAAGGCCTGTGAGTTTGCTGGCTTCCAATGCCAGATC GTCCGCTACGTGAAGCTAGCCCGTTCTCTCAAGACTTACGGTGTCTCCTTCTTCCTGGTGAAGGAAAAAATGAAA GGGAAGAACAAGCTAGTGCCCAGGCTTCTGGGCATCACCAAGGAGTGTGTGATGCGAGTGGATGAGAAGACCAAG GAAGTGATCCAGGAGTGGAACCTCACCAACATCAAACGCTGGGCTGCGTCTCCCAAAAGCTTCACCCTGGATTTT GGAGATTACCAAGATGGCTATTACTCAGTACAGACAACTGAAGGGGAGCAGATTGCACAGCTCATTGCCGGCTAC ATCGATATCATCCTGAAGAAGAAAAAAGCAAGGATCACTTTGGGCTGGAAGGAGTGAGGAGTCTACTATGCTG GAGGACTCAGTGTCCCCCAAAAAGTCAACAGTCCTGCAGCAGCAATACAACCGGGTGGGGAAAGTGGAGCATGGC TCTGTGGCCCTGCCATCATGCGCTCTGGAGCCTCTGGTCCTGAGAATTTCCAGGTGGGCAGCATGCCCCCT GCCCAGCAGCAGATTACCAGCGGCCAGATGCACCGAGGACACATGCCTCCTCTGACTTCAGCCCAGCAGGCACTC ACTGGAACCATTAACTCCAGCATGCAGGCCGTGCAGGCTGCCCAGGCCACCCTGGATGACTTTGACACTCTGCCG ACCGCAGTGGGCTGTGCAGTCACCACAATCTCCTCCAACCTGACGGAGATGTCCCGTGGGGTGAAGCTGCTGGCT GAACTGCTGCGCAGTGCCCAACCAGCCAGTGCTGAGCCCCGTCAGAACCTGCTGCAAGCAGCTGGGAACGTGGGC CAGGCCAGTGGGGAGCTGTTGCAACAAATTGGGGAAAGTGATACTGACCCCCACTTCCAGGATGCGCTAATGCAG CTCGCCAAAGCTGTGGCAAGTGCTGCAGCTGCCCTGGTCCTCAAGGCCAAGAGTGTGGCCCAGCGGACAGAGGAC TCGGGACTTCAGACCCAAGTTATTGCTGCAGCAACACAGTGTGCCCTATCCACTTCCCAACTAGTGGCCTGTACT AAGGTGGTGGCACCTACAATCAGCTCACCTGTCTGCCAAGAGCAACTGGTGGAGGCTGGACGACTGGTAGCCAAA GCCGTGGAGGGCTGTGTGTCTGCCTCCCAGGCAGCTACAGAGGATGGGCAACTGTTGCGAGGGGTAGGAGCAGCA GCCACAGCTGTCACCCAGGCCCTAAATGAGCTGCTGCAGCATGTGAAAGCCCATGCCACAGGGGCTGGGCCTGCT GGCCGTTATGACCAGGCTACTGACACCATCCTAACCGTCACTGAGAACATCTTTAGCTCCATGGGTGATGCTGGG GAGATGGTGGGACAGGCCCGCATCCTGGCCCAAGCCACATCTGACCTGGTCAATGCCATCAAGGCTGATGCTGAG GGGGAAAGTGATCTGGAGAACTCCCGCAAGCTCTTAAGTGCTGCCAAGATCCTAGCTGATGCCACAGCCAAGATG GTAGAGGCTGCCAAGGGAGCAGCTGCCCACCCTGACAGTGAGGAGCAGCAGCAGCGGCTGCGGGAGGCAGCTGAG GGGCTGCGCATGGCCACCAATGCAGCTGCGCAGAATGCCATCAAGAAAAAGCTGGTGCAGCGCCTGGAGCATGCA GCCAAGCAGGCTGCAGCCTCAGCCACACAGACCATCGCTGCAGCTCAGCACGCAGCCTCTACCCCCAAAGCCTCT GCCGGCCCCAGCCCCTGCTGGTGCAGAGCTGCAAGGCAGTGGCAGAGCAGATTCCACTGCTGGTGCAGGGCGTC CCAGGTGGGAAGATGGTGGCAGCTGCAAAGGCCTCAGTGCCAACGATTCAGGACCAGGCTTCAGCCATGCAGCTG AGTCAGTGTGCCAAGAACCTGGGCACCGCGCTGGCTGAACTCCGGACGGCTGCCCAGAAGGCTCAGGAAGCATGT GGACCTTTGGAGATGGATTCTGCACTGAGTGTGGTACAGAATCTAGAGAAAGATCTACAGGAAGTGAAGGCAGCA GCTCGAGATGGCAAGCTTAAACCCTTACCTGGGGAGACAATGGAGAAGTGTACCCAGGACCTGGGCAACAGCACC AAAGCCGTGAGCTCAGCCATCGCCCAGCTACTGGGAGAGGTTGCCCAGGGCAATGAGAATTATGCAGGTATTGCA GCTCGGGATGTGGCAGGTGGGCTGCGGTCACTGGCCCAGGCCGCTAGGGGAGTCGCTGCACTGACGTCAGATCCT GCAGTGCAGGCCATTGTACTTGATACGGCCAGTGATGTGCTGGACAAGGCCAGCAGCCTCATTGAGGAGGCGAAA

### 2905/6881 FIGURE 2682B

AAGGCAGCTGGCCATCCAGGGGACCCTGAGAGCCAGCAGCGGCTTGCCCAGGTGGCTAAAGCAGTGACCCAGGCT  $\tt CTGAACCGCTGTGTCAGCTGCCTACCTGGCCAGCGCGATGTGGATAATGCCCTGAGGGCAGTTGGAGATGCCAGC$ GCTGCTGGGCTGAATCAGGCAGCCACAGAACTGGTGCAGGCCTCTCGGGGAACCCCTCAGGACCTGGCTCGAGCC TCAGGCCGATTTGGACAGGACTTCAGCACCTTCCTGGAAGCTGGTGTGGAGATGGCAGGCCAGGCTCCGAGCCAG GAGGACCGAGCCCAAGTTGTGTCCAACTTGAAGGGCATCTCCATGTCTTCAAGCAAACTTCTTCTGGCTGCCAAG ATCAATCAGCTCATCACTATGTGCACCCAGCAGGCACCCGGCCAGAAGGAGTGTGATAACGCCCTGCGGGAATTG GAGACGGTCCGGGAACTCCTGGAGAACCCAGTCCAGCCCATCAATGACATGTCCTACTTTGGTTGCCTGGACAGT GTAATGGAGAACTCAAAGGTGCTGGGCGAGGCCATGACTGGCATCTCCCAAAATGCCAAGAACGGAAACCTGCCA GAGTTTGGAGATGCCATTTCCACAGCCTCAAAGGCACTTTGTGGCTTCACCGAGGCAGCTGCACAGGCTGCATAT AACCAGGCAATTCAGATGGCCTGCCAGAGTTTGGGAGAGCCTGGCTGTACCCAGGCCCAGGTGCTCTCTGCAGCC ACCATTGTGGCTAAACACCCTCTGCACTGTGTAACAGCTGTCGCCTGGCTTCTGCCCGTACCACCCAATCCTACT GCCAAGCGCCAGTTTGTACAGTCAGCCAAGGAGGTGGCCAACAGCACAGCTAATCTTGTCAAGACCATCAAGGCG CTAGATGGGGCCTTCACAGAGGAGAACCGTGCCCAGTGCCGAGCAGCAACAGCCCCTCTGCTGGAGGCTGTGGAC AATCTGAGTGCCTTTGCGTCCAACCCTGAGTTCTCCAGCATTCCTGCCCAGATCAGCCCTGAGGGTCGGGCTGCC ATGGAGCCCATTGTGATCTCTGCCAAGACAATGTTAGAGAGTGCCGGGGGACTCATCCAGACAGCCCGGGCCCTC AAGCTAATTACAAGCATGAGGGACAAGGCTCCAGGGCAGCTGGAGTGTGAAACGGCCATTGCAGCTCTGAACAGT GAGGCCTTGCACACTCAGATGCTCACTGCAGTCCAAGAGATCTCCCATCTCATTGAGCCGCTGGCCAATGCTGCC CGGGCTGAAGCCTCCCAGCTGGGACACAAGGTGTCCCAGATGGCGCAGTACTTTGAGCCGCTCACCCTGGCTGCA GTGGGTGCTGCCTCCAAGACCCTGAGCCACCCGCAGCAGATGGCACTCCTGGACCAGACTAAAACATTGGCAGAG CTGGAGGAGGCTGTGCAGATGATGACCGAGGCCGTAGAGGACCTGACAACCACCTCAACGAGGCAGCCAGTGCT GCTGGGGTCGTGGGTGGCATGGTGGACTCCATCACCCAGGCCATCAACCAGCTAGATGAAGGACCAATGGGTGAA CCAGAAGGTTCCTTCGTGGATTACCAAACAACTATGGTGCGGACAGCCAAGGCCATTGCAGTGACCGTTCAGGAG ATGGTTACCAAGTCAAACACCAGCCCAGAGGAGCTGGGCCCTCTTGCTAACCAGCTGACCAGTGACTATGGCCGT CTGGCCTCGGAGGCCAAGCCTGCAGCGGTGGCTGCAAAATGAAGAGATAGGTTCCCATATCAAACACCGGGTA ACCAAGAAGGAGCTCATAGAGTGTGCCCGGAGAGTCTCTGAGAAGGTCTCCCACGTCCTGGCTGCGCTCCAGGCT GGGAATCGTGGCACCCAGGCCTGCATCACAGCAGCCAGCGCTGTGTCTGGTATCATTGCTGACCTCGACACCACC ATCATGTTCGCCACTGCTGGCACGCTCAATCGTGAGGGTACTGAAACTTTCGCTGACCACCGGGAGGGCATCCTG AAGACTGCGAAGGTGCTGGAGGACACCAAGGTCCTGGTGCAAAACGCAGCTGGGAGCCAGGAGAAGTTGGCG GCTGAGGACCCTGAGACCCAGGTGGTACTAATCAACGCAGTGAAAGATGTAGCCAAAGCCCTGGGAGACCTCATC AGTGCAACGAAGGCTGCAGCTGGCAAAGTTGGAGATGACCCTGCTGTGTGGCAGCTAAAGAACTCTGCCAAGGTG ATGGTGACCAATGTGACATCATTGCTTAAGACAGTAAAAGCCGTGGAAGATGAGGCCACCAAAGGCACTCGGGCC CTGGAGGCAACCACAGAACACATACGGCAGGAGCTGGCGGTTTTCTGTTCCCCAGAGCCACCTGCCAAGACCTCT ACCCCAGAAGACTTCATCCGAATGACCAAGGGTATCACCATGGCAACCGCCAAGGCCGTTGCTGCTAGCAATTCC TGTCGCCAGGAAGATGTCATTGCCACAGCCAATCTGAGCCGCCGTGCTATTGCAGATATGCTTCGGGCTTGCAAG GAAGCAGCTTACCACCCAGAAGTGGCCCCTGATGTGCGGCTTCGAGCCCTGCACTATGGCCGGGAGTGTGCCAAT GGCTACCTGGAACTGCTGGACCATGTACTGCTGACCCTGCAGAAGCCAAGCCCAGAACTGAAGCAGCAGTTGACA GGACATTCAAAGCGTGTGGCTGGTTCCGTCACTGAGCTCATCCAGGCTGCTGAAGCCATGAAGGGAACAGAATGG . GTAGACCCAGAGGACCCCACAGTCATTGCTGAGAATGAGCTCCTGGGAGCTGCAGCCGCCATTGAGGCTGCAGCC AAAAAGCTAGAGCAGCTGAAGCCCCGGGCCAAACCCAAGGAGGCAGATGAGTCCTTGAACTTTGAGGAGCAGATA CTAGAAGCTGCCAAGTCCATTGCAGCAGCCACCAGTGCACTGGTAAAGGCTGCGTCGGCTGCCCAGAGAGAACTA

### 2906/6881 FIGURE 2682C

### 2907/6881 FIGURE 2683

MVALSLKISIGNVVKTMQFEPSTMVYDACRIIRERIPEAPAGPPSDFGLFLSDDDPKKGIWLEAGKALDYYMLRN GDTMEYRKKQRPLKIRMLDGTVKTIMVDDSKTVTDMLMTICARIGITNHDEYSLVRELMEEKKEEITGTLRKDKT  ${ t LLRDEKKMEKLKQKLHTDDELNWLDHGRTLREQGVEEHETLLLRRKFFYSDQNVDSRDPVQLNLLYVQARDDILN$ GSHPVSFDKACEFAGFQCQIQFGPHNEQKHKAGFLDLKDFLPKEYVKQKGERKIFQAHKNCGQMSEIEAKVRYVK  ${\tt LARSLKTYGVSFFLVKEKMKGKNKLVPRLLGITKECVMRVDEKTKEVIQEWNLTNIKRWAASPKSFTLDFGDYQD}$ GYYSVQTTEGEQIAQLIAGYIDIILKKKKSKDHFGLEGDEESTMLEDSVSPKKSTVLQQQYNRVGKVEHGSVALP  ${ t AIMRSGASGPENFQVGSMPPAQQQITSGQMHRGHMPPLTSAQQALTGTINSSMQAVQAAQATLDDFDTLPPLGQD}$ AASKAWRKNKMDESKHEIHSQVDAITAGTASVVNLTAGDPAETDYTAVGCAVTTISSNLTEMSRGVKLLAALLED EGGSGRPLLQAAKGLAGAVSELLRSAQPASAEPRQNLLQAAGNVGQASGELLQQIGESDTDPHFQDALMQLAKAV ASAAAALVLKAKSVAQRTEDSGLQTQVIAAATQCALSTSQLVACTKVVAPTISSPVCQEQLVEAGRLVAKAVEGC VSASQAATEDGQLLRGVGAAATAVTQALNELLQHVKAHATGAGPAGRYDQATDTILTVTENIFSSMGDAGEMVGQ ARILAQATSDLVNAIKADAEGESDLENSRKLLSAAKILADATAKMVEAAKGAAAHPDSEEQQQRLREAAEGLRMA  ${\tt TNAAAQNAIKKKLVQRLEHAAKQAAASATQTIAAAQHAASTPKASAGPQPLLVQSCKAVAEQIPLLVQGVRGSQA}$ QPDSPSAQLALIAASQSFLQPGGKMVAAAKASVPTIQDQASAMQLSQCAKNLGTALAELRTAAQKAQEACGPLEM DSALSVVQNLEKDLQEVKAAARDGKLKPLPGETMEKCTQDLGNSTKAVSSAIAQLLGEVAQGNENYAGIAARDVA GGLRSLAQAARGVAALTSDPAVQAIVLDTASDVLDKASSLIEEAKKAAGHPGDPESQQRLAQVAKAVTQALNRCV SCLPGQRDVDNALRAVGDASKRLLSDSLPPSTGTFQEAQSRLNEAAAGLNQAATELVQASRGTPQDLARASGRFG QDFSTFLEAGVEMAGQAPSQEDRAQVVSNLKGISMSSSKLLLAAKALSTDPAAPNLKSQLAAAARAVTDSINQLI TMCTQQAPGQKECDNALRELETVRELLENPVQPINDMSYFGCLDSVMENSKVLGEAMTGISQNAKNGNLPEFGDA ISTASKALCGFTEAAAQAAYLVGVSDPNSQAGQQGLVEPTQFARANQAIQMACQSLGEPGCTQAQVLSAATIVAK HTSALCNSCRLASARTTNPTAKRQFVQSAKEVANSTANLVKTIKALDGAFTEENRAQCRAATAPLLEAVDNLSAF ASNPEFSSIPAQISPEGRAAMEPIVISAKTMLESAGGLIQTARALAVNPRDPPSWSVLAGHSRTVSDSIKKLITS MRDKAPGQLECETAIAALNSCLRDLDQASLAAVSQQLAPREGISQEALHTQMLTAVQEISHLIEPLANAARAEAS QLGHKVSQMAQYFEPLTLAAVGAASKTLSHPQQMALLDQTKTLAESALQLLYTAKEAGGNPKQAAHTQEALEEAV QMMTEAVEDLTTTLNEAASAAGVVGGMVDSITQAINQLDEGPMGEPEGSFVDYQTTMVRTAKAIAVTVQEMVTKS NTSPEELGPLANQLTSDYGRLASEAKPAAVAAENEEIGSHIKHRVQELGHGCAALVTKAGALQCSPSDAYTKKEL IECARRVSEKVSHVLAALQAGNRGTQACITAASAVSGIIADLDTTIMFATAGTLNREGTETFADHREGILKTAKV LVEDTKVLVQNAAGSQEKLAQAAQSSVATITRLADVVKLGAASLGAEDPETQVVLINAVKDVAKALGDLISATKA  ${\tt AAGKVGDDPAVWQLKNSAKVMVTNVTSLLKTVKAVEDEATKGTRALEATTEHIRQELAVFCSPEPPAKTSTPEDF}$ IRMTKGITMATAKAVAAGNSCROEDVIATANLSRRAIADMLRACKEAAYHPEVAPDVRLRALHYGRECANGYLEL LDHVLLTLQKPSPELKQQLTGHSKRVAGSVTELIQAAEAMKGTEWVDPEDPTVIAENELLGAAAAIEAAAKKLEQ LKPRAKPKEADESLNFEEQILEAAKSIAAATSALVKAASAAQRELVAQGKVGAIPANALDDGQWSQGLISAARMV  $\verb|AAATNNLCEAANAAVQGHASQEKLISSAKQVAASTAQLLVACKVKADQDSEAMKRLQAAGNAVKRASDNLVKAAQDDSAAGNAVKRASDNLVKAAQDDSAAGNAVKRASDNLVKAAQDDSAAGNAVKRASDNLVKAAQDDSAAGNAVKRASDNLVKAQDDSAAGNAVAGNAVAGNAVAGNAVAGNAVAGNAVAAGNAVAAGNAVAAGNAVAAGNAVAAGNAVAAGNAVAAGNAVAAGNAVAAGNAVAAGNAVAAGNAVAAGNAVAAGNAVAAGNAVAG$ KAAAFEEQENETVVVKEKMVGGIAQIIAAQEEMLRKERELEEARKKLAQIRQQQYKFLPSELRDEH

AGACCGGAAAGGGCTCGGGTCATCCCGGCGCCCAGGGTCACCTTCCCACGGGCTGGCACCTGGGCGCGGGCGCTG CCCCGGAGCCGGCCGGGACCTGGCGCCCAATCCTGGGGGACCCGGTGCCGTGGCCCAGGGGCCGGGCCGAGG GCGGGCCCAGTCGCCCTTTGGCCGGGCGAGCTAATCGTCGGCTCAATGACGACGAGGCCCGACCCTTCCCGTCCA GGACCTACAGAGACAACCGAAGGAGAGCCCAAGGCGGCTTCTTTGCTGTCGCCGCCCCCACTGAAGCAAGAGCTC CCCGGCTCCACTGAAACACCAGCTCATTTAAGCTTTCCCCAACGCCCGGCCCTCCGGGACGATACCTAACAACGA CCGGCGCCCGCATCTGGAATAGGCTGGCGAGATACTTAGTATCCGAGGGCTCGGGACTTGGCGCCATCGAGGTCA TGGGGACCCAGGATCCAGGGAACATGGGAACCGGCGTCCCAGCCTCGGAGCAGATAAGCTGTGCCAAAGAGGATC CACAAGTTTATTGCCCTGAAGAGACTGGCGGCACCAAGGATGTGCAGGTTACAGACTGTAAGAGTCCCGAAGACA GCCGACCCCAAAAGAGACGGACTGCTGCAATCCGGAGGACTCTGGGCAGCTGATGGTTTCCTATGAGGGTAAAG TTCAAGCTAACCACGTCTCCCTAAGCAACATGATAAAGCATATAGGCATGGGCTTGAGGTACCTGCAGTGGTGGT ACCGGAAGACCCATGTGGAAAAGAAGACACCTTTCATCGACATGATCAATTCTGTACCCCTAAGACAGATTTATG GTTGTCCCTTGGGTGGCATCGGGGGAGGCACTATTACCCGTGGCTGGAGAGGCCAGTTCTGTCGTTGGCAGCTTA ATGTGGAAAATGAAGGGGACGAAGCTCTAGATGTGTCCATCATGTTCTCCATGCGGAATGGACTGGGTGGTGGAG  ${\tt GCATCATCCAACCCTTCCAAACCCCTACACG} \underline{{\tt ATG}} {\tt GCTGTGGCTGCACGAGTCACGGCAGCTACCACGGTAACCCA}$ CATCACAGCCTTTGACCCTGACAGCACGGGGCAGCAGGTGTGGCAGGATCTACTTCAGGATGGACAGCTGGACTC TCCCACTGGCCAAAGCACCCCTACGCAGAAAGGAGTAGGCATTGCTGGAGCTGTGTGTTTCCAGCAAGTTGCG ACCTCGAGGCCAGTGCCGCCTGGAGTTTTCACTGGCTTGGGACATGCCCAGGATCATGTTTGGAGCTAAAGGCCA AGTCCACTACAGGCGGTATACAAGGTTCTTTGGCCAGGATGGAGATGCAGCACCTGCCCTCAGCCACTATGCACT CTGGTACAAATCTGCGCTGTTCAATGAACTATACTTCCTGGCTGATGGAGGCACAGTGTGGCTGGAAGTTCTTGA GGACTCCCTACCAGAGGAGCTGGGCAGAAACATGTGTCACCTCCGCCCCACCCTACGGGACTACGGTCGATTTGG CTACCTTGAGGGCCAGGAGTACCGCATGTACAACACATATGATGTCCACTTTTATGCTTCCTTTGCCCTCATCAT GCTCTGGCCCAAACTTGAGCTCAGCCTACAGTATGACATGGCTCTGGCCACTCTCAGGGAGGACCTGACACGGCG ACGGTACCTGATGAGTGGGGTGATGGCACCTGTGAAAAGGAGGAACGTCATCCCCCATGATATTGGGGACCCAGA TGATGAACCATGGCTCCGCGTCAATGCATATTTAATCCATGATACTGCTGATTGGAAGGACCTGAACCTGAAGTT TGTGCTGCAGGTTTATCGGGACTATTACCTCACGGGTGATCAAAACTTCCTGAAGGACATGTGGCCTGTGTGTCT AGCTGTGATGGAATCTGAAATGAAGTTTGACAAGGACCATGATGGACTCATTGAAAATGGAGGCTATGCAGACCA GGTCCAGATGGCTGCTCTGTGTGGGGCACAGGACATCCAGGATAAGTTTTCTTCTATCCTCAGCCGGGGCCAAGA AGCCTATGAGAGACTGCTGTGGAATGGCCGCTATTACAACTATGACAGCAGCTCTCGGCCTCAGTCTCGTAGTGT TATGTCTGACCAGTGTGCTGGACAGTGGTTCCTGAAGGCCTGTGGCCTAGGAGAAGGAGACACTGAGGTGTTTCC TACCCAACATGTGGTCCGTGCTCTCCAAACTATCTTTGAGCTGAACGTCCAGGCCTTTGCAGGAGGGGCCATGGG GGTCTACGGGCTGCCAGCTACCATGATCCAAGAGGGCCTGACTTGGGAGGGCTTCCAGACAGCTGAAGGCTGCTA CCGTACCGTGTGGGAGCGCCTGGGTCTGGCCTTCCAGACCCCAGAGGCATACTGCCAGCAGCGAGTGTTCCGCTC ACTGGCCTACATGCGGCCACTGAGCATATGGGCCATGCAGCTAGCCCTGCAACAGCAGCAGCACAAAAAAGGCCTC CTGGCCAAAAGTCAAACAGGGCACAGGACTAAGGACAGGGCCTATGTTTGGACCAAAGGAAGCCATGGCAAACCT  ${\tt GAGCCCAGAG{\color{blue}{TGA}}}{\tt GCCGTCTGAACTGTGGGAGGGAAGTGCTAACAGCCCAGCCTCCAGCCTGGCCTTTCCTCCTT}$ AAGACCCAGAAAGCC

# 2909/6881 FIGURE 2685 -

MAVAARVTAATTVTHITAFDPDSTGQQVWQDLLQDGQLDSPTGQSTPTQKGVGIAGAVCVSSKLRPRGQCRLEFS
LAWDMPRIMFGAKGQVHYRRYTRFFGQDGDAAPALSHYALCRYAEWEERISAWQSPVLDDRSLPAWYKSALFNEL
YFLADGGTVWLEVLEDSLPEELGRNMCHLRPTLRDYGRFGYLEGQEYRMYNTYDVHFYASFALIMLWPKLELSLQ
YDMALATLREDLTRRRYLMSGVMAPVKRRNVIPHDIGDPDDEPWLRVNAYLIHDTADWKDLNLKFVLQVYRDYYL
TGDQNFLKDMWPVCLAVMESEMKFDKDHDGLIENGGYADQTYDGWVTTGPSAYCGGLWLAAVAVMVQMAALCGAQ
DIQDKFSSILSRGQEAYERLLWNGRYYNYDSSSRPQSRSVMSDQCAGQWFLKACGLGEGDTEVFPTQHVVRALQT
IFELNVQAFAGGAMGAVNGMQPHGVPDKSSVQSDEVWVGVVYGLAATMIQEGLTWEGFQTAEGCYRTVWERLGLA
FQTPEAYCQQRVFRSLAYMRPLSIWAMQLALQQQQHKKASWPKVKQGTGLRTGPMFGPKEAMANLSPE

GTAAAAGACCTCTACAAGGAGAGTTCAATCGGTAGCGGGAGCGGAGAGCTGACCCCAGAGAGCCCTGGGCAGCCC CACCTCCGCCGCCGGCCTAGTTACCATCACACCCCGGGAGAAGCCGCCAGCTGCCGCAGCCGGCCCCAGTCACCAT CCGCCGACACCCCAGCACTGCAGGCAGCGCGCGCAGGAAGCGGTGGCCCGGGCGGCCTCACATCGGCGGCGC CTGCCGGCGGGGACAAGAAGGTCATCGCAACGAAGGTTTTGGGAACAGTAAAATGGTTCAGTGTAAGGAACGGAT GGAAGTACCTTCGCAGTGTAGGAGATGGAGAGACTGTGGAGTTTGATGTTGTTGAAGGAGAAAAGGGTGCGGAGG CAGCAAATGTTACAGGGCCTGGTGGTGTTCCAGTTCAAGGCAGTACATATGCAGCAGACCGTAACCATTATAGAC GCTATCCACGTCGTAGGGTCCTCCACGCAATTACCAGCAAAATTACCAGAATAGTGAGAGTGGGGAAAAGAACGA GGGATCGGAGAGTGCTCCCGCAGGCCAAGCCCAACAACGCCGGCCCTACCGCAGGCGAAGGTTCCCACCTTACTA CATCCGGAGACCCTATGGGCGTCGACCACAGTATTCCAACCCTCCTGTGCAGGGTGAAGTGATGGAGGGTGCTGA CAACCAGGGTGCAGGAGAACAAGGTAGACCAGTGAGGCAGAATACGTATCGGGGATATAGACCACGATTCCGCAG GGGCCCTCCACGCCAAAGACAGCCTAGAGAGGACGGCAATGATGAAGATAAAGAAAATCAAGGAGATGAGACCCA AGGTCAGCAGCCACCTCAACGTCGGTACCGCCGCAACTTCAATTGCCGACGCAGACACCCCAGAAAACCCTAAACC ACAAGATGGCAAAGAGACAAAAGCAGCCGATCCACCAGCTGAGAATTCGTCCACTCCTGAGGCTGAGCGGGGCAG GACTGAG<u>TAA</u>ATGCCAGCTTACCATCTCTACCATCATCCGGTTTAGTCATCCAACAGGAAGAAATATGAAATTCC GAACTATCTGCATTATCTATGCAGCATGGGATTTTTATTATTTTTTACCTAAAGACGTCTCTTTTTGGTAATAACA AACGTGTTTTTTAAAAAAGCCTGGTTTTTTTCAATACGCCTTTAAAGG

# 2911/6881 FIGURE 2687

$$\label{thm:marpygrap} \begin{split} \mathsf{MRRPYGRRPQYSNPPVQGEVMEGADNQGAGEQGRPVRQNTYRGYRPRFRRGPPRQRQPREDGNDEDKENQGDETQ\\ \mathsf{GQQPPQRRYRNFNCRRRHPENPKPQDGKETKAADPPAENSSTPEAERGRTE \end{split}$$

GAAGAATAACCCCAGGAAGTACCTTCGCAGTATTCCAACCCTCCTGTGCAGGGTGAAGTGATGGAGGGTGCTGAC
AACCAGGGTGCAGGAAACAAGGTAGACCAGTGAGGCAGAATACGTATCGGGGATATAGACCACGATTCCGCAGG
GGCCCTCCACGCCAAAGACAGCCTAGAGAGGACGCCAATGATGAAGATAAAGAAAATCAAGGAGATGAGACCCAA
GGTCAGCAGCCACCTCAACGTCGGTACCGCCGCAACTTCAATTGCCGACGCAGACACCCCAGAAAACCCTAAACCA
CAAGATGGCAAAGAGACAAAAGCAGCCGATCCACCAGCTGAGAATTCGTCCACTCCTGAGGCTGAGCGGGGCAGG
ACTGAGTAAATGCCAGCTTACCATCTCTACCATCATCCGGTTTAGTCATCCAACAGGAAGAAATATGAAATTCCA
GCTATAAGAAATGAACAATAGAACTATCTGCATTATCTATGCAGCATGGGATTTTTATTATTTTTTACCTAAAGAC
GTCTCTTTTTGGTAATAACAAACGTGTTTTTT

#### 2913/6881 FIGURE 2689

# 2914/6881 FIGURE 2690

MAELDPFGAPAGAPGGPALGNGVAGAGEEDPAAAFLAQQESEIAGIENDEAFAILDGGAPGPQPHGEPPGGPDAV DGVMNGEYYQESNGPTDSYAAISQVDRLQSEPESIRKWREEQMERLEALDANSRKQEAEWKEKAIKELEEWYARQ DEQLQKTKANNRAAEEAFVNDIDESSPGTEWERVARLCDFNPKSSKQAKDVSRMRSVLISLKQAPLVH

### 2915/6881 FIGURE 2691

MAELDPFGAPAGAPGGPALGNGVAGAGEEDPAAAFLAQQESEIAGIENDEAFAILDGGAPGPQPHGEPPGGPDAV DGVMNGEYYQESNGPTDSYAAISQVDRLQSEPESIRKWREEQMERLEALDANSRKQEAEWKEKAIKELEEWYARQ DEQLQKTKANNRVADEAFYKQPFADVIGYVTNINHPCYSLEQAAEEAFVNDIDESSPGTEWERVARLCDFNPKSS KQAKDVSRMRSVLISLKQAPLVH

 $\texttt{GCTTCTGTACTGCCAGGTCCGGGTCGGCGGCTGCACTGCGG} \underline{\textbf{ATG}} \\ \texttt{AGACCGGTGCGACTCATGAAGGTGTTCGTCA} \\$ ATGAGCCCATCCCTGCCAAGGAGCTAGAGCGAGGTGTGGCGGGGGCCCACGGCCTGCTCTCCCGACC  ${\tt ACGTGGACAAGAGGATCCTGGATGCTGCAGGGGCCAATCTCAAAGTCATCAGCACCATGTCTGTGGGCATCGACC}$ ACTTGGCTTTGGATGAAATCAAGAAGCGTGGGATCCGAGTTGGCTACACCCCAGATGTCCTGACAGATACCACCG  ${\tt CCGAACTCGCAGTCTCCCTGCTACTTACCACCTGCCGCCGGTTGCCGGAGGCCATCGAGGAAGTGAAGAATGGTG}$ GCTGGACCTCGTGGAAGCCCCTCTGGCTGTGTGGCTATGGACTCACGCAGAGCACTGTCGGCATCATCGGGCTGG GGCGCATAGGCCAGGCCATTGCTCGGCGTCTGAAACCATTCGGTGTCCAGAGATTTCTGTACACAGGGCGCCAGC CCAGGCCTGAGGAAGCAGCAGAATTCCAGGCAGAGTTTGTGTCTACCCCTGAGCTGGCCCCAATCTGATTTCA TCGTCGTGGCCTGCTCCTTAACACCTGCAACCGAGGGACTCTGCAACAAGGACTTCTTCCAGAAGATGAAGGAAA  ${\tt AGATTGCAGCTGCTGGACTGGATGTGACGAGCCCAGAACCACTGCCTACAAACCACCCTCTCCTGACCCTGAAGA}$ ACTGTGTGATTCTGCCCCACATTGGCAGTGCCACCCACAGAACCCGCAACACCATGTCCTTGTTGGCAGCTAACA  $\tt CGGGAAGCAAACCGTGCCCTGGTATTGTCAGACACCCCAGGCTTGATTTGGATCCACAGGCAGAGCCAAGGGAA$ GGTGTGATTCTCTGAGGAAAGAGTGATTCTGATATATGTACTTGTCACATTGGTGTTGGACACATTTGCGCCAAA AGTATGGTAATTCTATTATTAAATAATTCTCTGAG

MRPVRLMKVFVTRRIPAEGRVALARAADCEVEQWDSDEPIPAKELERGVAGAHGLLCLLSDHVDKRILDAAGANL KVISTMSVGIDHLALDEIKKRGIRVGYTPDVLTDTTAELAVSLLLTTCRRLPEAIEEVKNGGWTSWKPLWLCGYG LTQSTVGIIGLGRIGQAIARRLKPFGVQRFLYTGRQPRPEEAAEFQAEFVSTPELAAQSDFIVVACSLTPATEGL CNKDFFQKMKETAVFINISRGDVVNQDDLYQALASGKIAAAGLDVTSPEPLPTNHPLLTLKNCVILPHIGSATHR TRNTMSLLAANNLLAGLRGEPMPSELKL

 ${\tt AGTGTGAAATCTTCAGAGAAGAATTTCTCTTTAGTTCTTTGCAAGAAGGTAGAGATAAAGACACTTTTTCAAAA\underline{A}}$ TGGCAATGGTATCAGAATTCCTCAAGCAGGCCTGGTTTATTGAAAATGAAGAGCAGGAATATGTTCAAACTGTGA AGCGTCAACAGATCAAAGCAGCATATCTCCAGGAAACAGGAAAGCCCCTGGATGAAACACTTAAGAAAGCCCTTA CAGGTCACCTTGAGGAGGTTGTTTTAGCTCTGCTAAAAACTCCAGCGCAATTTGATGCTGATGAACTTCGTGCTG CCATGAAGGGCCTTGGAACTGATGAAGATACTCTAATTGAGATTTTGGCATCAAGAACTAACAAAGAAATCAGAG ACATTAACAGGGTCTACAGAGAGGAACTGAAGAGAGATCTGGCCAAAGACATAACCTCAGACACATCTGGAGATT CAGATGCCAGGGCCTTGTATGAAGCAGGAGAAAGGAGAAAGGGGACAGACGTAAACGTGTTCAATACCATCCTTA CCACCAGAAGCTATCCACAACTTCGCAGAGTGTTTCAGAAATACACCAAGTACAGTAAGCATGACATGAACAAAG TTCTGGACCTGGAGTTGAAAGGTGACATTGAGAAATGCCTCACAGCTATCGTGAAGTGCGCCACAAGCAAACCAG CTTTCTTTGCAGAGAGCTTCATCAAGCCATGAAAGGTGTTGGAACTCGCCATAAGGCATTGATCAGGATTATGG TTTCCCGTTCTGAAATTGACATGAATGATATCAAAGCATTCTATCAGAAGATGTATGGTATCTCCCTTTGCCAAG  ${\tt CCATCCTGGATGAAACCAAAGGAGATTATGAGAAAATCCTGGTGGCTCTTTGTGGAGGAAAC{{\tt TAA} \over A} {\tt CATTCCCTT}$ GATGGTCTCAAGCTATGATCAGAAGACTTTAATTATATTTTCATCCTATAAGCTTAAATAGGAAAGTTTCTTC AACAGGATTACAGTGTAGCTACCTACATGCTGAAAAATATAGCCTTTAAATCATTTTTATATTATAACTCTGTAT AATAGAGATAAGTCCATTTTTTAAAAATGTTTTCCCCAAACCATAAAACCCTATACAAGTTGTTCTAGTAACAAT ACATGAGAAAGATGTCTATGTAGCTGAAAATAAAATGACGTCACAAGAC

## 2920/6881 FIGURE 2696

MAMVSEFLKQAWFIENEEQEYVQTVKSSKGGPGSAVSPYPTFNPSSDVAALHKAIMVKGVDEATIIDILTKRNNA QRQQIKAAYLQETGKPLDETLKKALTGHLEEVVLALLKTPAQFDADELRAAMKGLGTDEDTLIEILASRTNKEIR DINRVYREELKRDLAKDITSDTSGDFRNALLSLAKGDRSEDFGVNEDLADSDARALYEAGERRKGTDVNVFNTIL TTRSYPQLRRVFQKYTKYSKHDMNKVLDLELKGDIEKCLTAIVKCATSKPAFFAEKLHQAMKGVGTRHKALIRIM VSRSEIDMNDIKAFYQKMYGISLCQAILDETKGDYEKILVALCGGN

MSGALDVLQMKEEDVLKFLAAGTHLGGTNLDFQMEQYICKRKSNGIYIINLKRTWEKLLLAASAIVAIENPADVS VISSRNTGQRAVLKFAAATGATPIAGHFTPGTFTNQIQAAFREPWLLVVTDPRADHQPLTEASYVNLPTIALCNT DSPMRYVDIAIPCNNKGAHSVGLMWRMLAREVLRMCSTISYDHPWEVMPDLYFYRDPEDIEKEEQAAAEKAVTKE EFQGEWTAPAPEFTATQPEVADWSEGVQVPSVPIQQFPTEDWSAQPATEDWSAAPTAQATEWVGATTDWS

### 2923/6881 FIGURE 2699

GGGAAACTTTCACAATGTCCGGAGCCCTTGATGTCCTGCAAATGAAGGAGGAGGATGTCCTTAAGTTCCTTGCAG
CAGGAACCCACTTAGGTGGCACCAATCTTGACTTCCAGATGGAACAGTACATCTGTAAAAGGAAAAGTAATGGCA
TCTATATCATAAATCTGAAGAGGACCTGGGAGAAGCTTCTGCTGGCAGCTAGTGCTATTGTTGCCATTGAAAACC
CTGCTGATGTCAGTGTTATATCCTCCAGGAATACTGGCCAGAGGGCTGTGCTGAAGTTTGCTGCTGCCACTGGAG
CCACTCCAATTGCTGGCCACTTCACTCCTGGAACCTTCACTAACCAGACACGGAGGCATCTTATGTTAACCTACC
TACCATTGCTCTGTGTAACACAGATTCTCCTATGCGCTATGTGGACATTGCCATCCCATGCAACAACAAGGGAGC
TCACTCAGTGGGTTTGATGTGGTAGATGCTGGCTCGGGAAGTTCTGCGCATGTGTAGCACGATTTCCTATGACCA
CCCGTGGGAGGTCATGCCTGATCTCTACTTCTACAGAGATCCTGAAGATATTGAAAAAAGAAGAGCAGGCTGCTGC
TGA

### 2925/6881. FIGURE 2701

GGCACGAGGGCCAGGAACGCCAGCCGTTCACGCGTTCGGTCCTCCTTGGCTGACTCACCGCCCTCGCCGCCGCAC CATGGACGCCCCCAGGCAGGTGGTCAACTTTGGGCCTGGTCCCGCCAAGCTGCCGCACTCAGTGTTGTTAGAGAT ACAAAAGGAATTATTAGACTACAAAGGAGTTGGCATTAGTGTTCTTGAAATGAGTCACAGGTCATCAGATTTTGC CAAGATTATTAACAATACAGAGAATCTTGTGCGGGAATTGCTAGCTGTTCCAGACAACTATAAGGTGATTTTTCT GCAAGGAGGTGGGTGCGGCCAGTTCAGTGCTGTCCCCTTAAACCTCATTGGCTTGAAAGCAGGAAGGTGTGCGGA CTATGTGGTGACAGGAGCTTGGTCAGCTAAGGCCGCAGAAGAAGCCCAAGAAGTTTGGGACTATAAATATCGTTCA CCCTAAACTTGGGAGTTATACAAAAATTCCAGATCCAAGCACCTGGAACCTCAACCCAGATGCCTCCTACGTGTA TTATTGCGCAAATGAGACGGTGCATGGTGTGGAGTTTGACTTTATACCCGATGTCAAGGGAGCAGTACTGGTTTG TGACATGTCCTCAAACTTCCTGTCCAAGCCAGTGGATGTTTCCAAGTTTGGTGTGATTTTTGCTGGTGCCCAGAA GAATGTTGGCTCTGCTGGGGTCACCGTGGTGATTGTCCGTGATGACCTGCTGGGGTTTGCCCTCCGAGAGTGCCC CTCGGTCCTGGAATACAAGGTGCAGGCTGGAAACAGCTCCTTGTACAACACGCCTCCATGTTTCAGCATCTACGT CATGGGCTTGGTTCTGGAGTGGATTAAAAACAATGGAGGTGCCGCGGCCATGGAGAAGCTTAGCTCCATCAAATC TCAAACAATTTATGAGATTATTGATAATTCTCAAGGATTCTACGTGTCTGTGGGAGGCATCCGGGCCTCTCTGTA TAATGCTGTCACAATTGAAGACGTTCAGAAGCTGGCCGCCTTCATGAAAAAATTTTTTGGAGATGCATCAGCTA<u>TG</u> AACACATCCTAACCAGGATATACTCTGTTCTTGAACAACATACAAAGTTTAAAGTAACTTGGGGATGGCTACAAA AAGTTAACACAGTATTTTTCTCAAATGAACATGTTTATTGCAGATTCTTCTTTTTTGAAAGAACAACAGCAAAAC ATCCACAACTCTGTAAAGCTGGTGGGACCTAATGTCACCTTAATTCTGACTTGAACTGGAAGCATTTTAAGAAAT CTTGTTGCTTTTCTAACAAATTCCCGCGTATTTTGCCTTTGCTGCTACTTTTCTAGTTAGATTTCAAACTTGCC TGTGGACTTAATAATGCAAGTTGCGATTAATTATTTCTGGAGTCATGGGAACACACAGCACAGAGGGTAGGGGGG CCCTCTAGGTGCTGAATCTACACATCTGTGGGGTCTCCTGGGTTCAGCGGCTGTTGATTCAAGGTCAACATTGAC AGTGACATACTTTATATATGTTTATATTAGCAAGGTCTGTTTTTAATACCATATACTTTATATTTCTATACATTT ATATTTCTAATAATACAGTTATCACTGATATATGTAGACACTTTTAGAATTTATTAAATCCTTGACCTTGTGCAT TATAGCATTCCATTAGCAAGAGTTGTACCCCCTCCCCAGTCTTCGCCTTCCTCTTTTTAAGCTGTTTTATGAAAA TCAATTATGCCATTAAACTAAACATTTCTGTTAAATTACCCTATCCTTTGTTCTCTACTGTTTTCTTTGTAATGT ATGACTACGAGAGTGATACTTTGCTGAAAAGTCTTTCCCCTATTGTTTATCTATTGTCAGTATTTTATGTTGAAT 

MDAPRQVVNFGPGPAKLPHSVLLEIQKELLDYKGVGISVLEMSHRSSDFAKIINNTENLVRELLAVPDNYKVIFL QGGGCGQFSAVPLNLIGLKAGRCADYVVTGAWSAKAAEEAKKFGTINIVHPKLGSYTKIPDPSTWNLNPDASYVY YCANETVHGVEFDFIPDVKGAVLVCDMSSNFLSKPVDVSKFGVIFAGAQKNVGSAGVTVVIVRDDLLGFALRECP SVLEYKVQAGNSSLYNTPPCFSIYVMGLVLEWIKNNGGAAAMEKLSSIKSQTIYEIIDNSQGFYVSVGGIRASLY NAVTIEDVQKLAAFMKKFLEMHQL

GGCACGAGGGCCAGGAACGCCAGCCGTTCACGCGTTCGGTCCTTCGTTGGCTGACTCACCGCCCTCGCCGCCGCAC  $\mathtt{C} \underline{\mathtt{ATG}} \mathtt{GACGCCCCAGGCAGGTGGTCAACTTTGGGCCTGGTCCCGCCAAGCTGCCGCACTCAGTGTTGTTAGAGAT$ ACAAAAGGAATTATTAGACTACAAAGGAGTTGGCATTAGTGTTCTTGAAATGAGTCACAGGTCATCAGATTTTGC CAAGATTATTAACAATACAGAGAATCTTGTGCGGGAATTGCTAGCTGTTCCAGACAACTATAAGGTGATTTTTCT GCAAGGAGGTGGGTGCGGCCAGTTCAGTGCTGTCCCCTTAAACCTCATTGGCTTGAAAGCAGGAAGGTGTGCGGA CTATGTGGTGACAGGAGCTTGGTCAGCTAAGGCCGCAGAAGAAGCCAAGAAGTTTGGGACTATAAATATCGTTCA CCCTAAACTTGGGAGTTATACAAAAATTCCAGATCCAAGCACCTGGAACCTCAACCCAGATGCCTCCTACGTGTA TTATTGCGCAAATGAGACGGTGCATGGTGTGGAGTTTGACTTTATACCCGATGTCAAGGGAGCAGTACTGGTTTG TGACATGTCCTCAAACTTCCTGTCCAAGCCAGTGGATGTTTCCAAGTTTGGTGTGATTTTTGCTGGTGCCCAGAA GAATGTTGGCTCTGCTGGGGTCACCGTGGTGATTGTCCGTGATGACCTGCTGGGGTTTGCCCTCCGAGAGTGCCC CTCGGTCCTGGAATACAAGGTGCAGGCTGGAAACAGCTCCTTGTACAACACGCCTCCATGTTTCAGCATCTACGT CATGGGCTTGGTTCTGGAGTGGATTAAAAACAATGGAGGTGCCGCGGCCATGGAGAAGCTTAGCTCCATCAAATC TCAAACAATTTATGAGATTATTGATAATTCTCAAGGATTCTACGTTTGTCCAGTGGAGCCCCAAAATAGAAGCAA GATGAATATTCCATTCCGCATTGGCAATGCCAAAGGAGATGATGCTTTAGAAAAAAGATTTCTTGATAAAGCTCT TGAACTCAATATGTTGTCCTTGAAAGGGCATAGGTCTGTGGGAGGCATCCGGGCCTCTCTGTATAATGCTGTCAC AATTGAAGACGTTCAGAAGCTGGCCGCCTTCATGAAAAAATTTTTGGAGATGCATCAGCTA<u>TGA</u>ACACATCCTAA CCAGGATATACTCTGTTCTTGAACAACATACAAAGTTTAAAGTAACTTGGGGATGGCTACAAAAAGTTAACACAG TATTTTTCTCAAATGAACATGTTTATTGCAGATTCTTCTTTTTTGAAAGAACAACAGCAAAACATCCACAACTCT GTAAAGCTGGTGGGACCTAATGTCACCTTAATTCTGACTTGAACTGGAAGCATTTTAAGAAATCTTGTTGCTTTT CTAACAAATTCCCGCGTATTTTGCCTTTGCTGCTACTTTTTCTAGTTAGATTTCAAACTTGCCTGTGGACTTAAT AATGCAAGTTGCGATTAATTATTTCTGGAGTCATGGGAACACACAGCACAGAGGGTAGGGGGGCCCTCTAGGTGC TGAATCTACACATCTGTGGGGTCTCCTGGGTTCAGCGGCTGTTGATTCAAGGTCAACATTGACCATTGGAGGAGT TATATATGTTTATATTAGCAAGGTCTGTTTTTAATACCATATACTTTATATTTCTATACATTTATATTTCTAATA ATACAGTTATCACTGATATATGTAGACACTTTTAGAATTTATTAAATCCTTGACCTTGTGCATTATAGCATTCCA TTAGCAAGAGTTGTACCCCCTCCCCAGTCTTCGCCTTCCTCTTTTTAAGCTGTTTTATGAAAAAGACCTAGAAGT TTAAACTAAACATTTCTGTTAAATTACCCTATCCTTTGTTCTCTACTGTTTTCTTTGTAATGTATGACTACGAGA GTGATACTTTGCTGAAAAGTCTTTCCCCTATTGTTTATCTATTGTCAGTATTTTATGTTGAATATGTAAAGAACA 

MDAPRQVVNFGPGPAKLPHSVLLEIQKELLDYKGVGISVLEMSHRSSDFAKIINNTENLVRELLAVPDNYKVIFL QGGGCGQFSAVPLNLIGLKAGRCADYVVTGAWSAKAAEEAKKFGTINIVHPKLGSYTKIPDPSTWNLNPDASYVY YCANETVHGVEFDFIPDVKGAVLVCDMSSNFLSKPVDVSKFGVIFAGAQKNVGSAGVTVVIVRDDLLGFALRECP SVLEYKVQAGNSSLYNTPPCFSIYVMGLVLEWIKNNGGAAAMEKLSSIKSQTIYEIIDNSQGFYVCPVEPQNRSK MNIPFRIGNAKGDDALEKRFLDKALELNMLSLKGHRSVGGIRASLYNAVTIEDVQKLAAFMKKFLEMHQL

### 2929/6881 FIGURE 2705

<u>ATG</u>GTGGAAAAGGAGCAAAGACATAGTCGGAATGAATGGGAAGGTTGGTATAATGGACCCAAATCTCTTGTTTCA AAACAAGTTAAGGAAAATTGTTTTAAAAAATCCTAAACACTCAGTCTGTGAATATGATCCTGGGTCCTCTCAGAAC TGCCAACATTCTAACACCAGCTGGCACCAGAGACCCTGCTCTGAGGTCAGGGATGATGTGAGCAAGTGGTCTAAT TTTCTTAAAGAAGAAAAAGAGGACTCCAACCGTAAGAATTGAGTACAAGGAGTTGCTCAGTGATGTGAAGCTG AACCCAGACAGCTGCCCACAGGAGAAGGATGCCATCCCAAAGATGAATCAGAGTTTCCATGAGCAAAAAGAGCCTT GTGAGTCGTCGGCAAAGCCTGAGTCCTGTCCTTTCGCTCTCCCCCGACAGTATGAGCTTCACCACTCGCTCC ACCTTCTCCACCAACTACCGGTCCCTGGGCTCTGTCCAGGCGCCCAGCTACGGCCCCGGCCTATAGACAATGCC CATCTTGCTGCTGATGACTGTAGAGTCAAGTATGAGACAGAACTGGCCATGCACCAGTCTGTGGAGAAAGACATC CATGGGCTCCACAAGGTCATCGATGACACCAATGTCACTTGGCTGCAGGTGGAGACACAGATCGAGGCTCTCAAG GAGGAGCTCTTTCATGAAGAAGAACCACGAATAGGAAATAAAAGGCCCACAAGCTCAGATTGCCAGCTCTGGGTT GACAGTGGAGTGGTCCCCATGCAGCCCGCCAAGGTCGGAGCTGCTGAGATGATGCTCACTGAGCCGAGATGCACA GAGGCCTGCTACACCGTGAAGATGGAGCAGCTCGACGGAATCGTGCCACACTTGGAGTCAGAGCTGGCACAGACC TGGGCAGAGGACAGTGCCAGGCCCAGCAGTACGAGGCCCTGATGAACATCAAGGTCAAGTTGGAGGCTGAGATC ACCACCTACTGCTGCTGAAAGATGGCGAGGACGTCAATCTTGGTGATACCCTGGACAGCAACTCCATG CAAACCATCCAAAAGACCACCACCTGCCAGACAGTGGATGGCAAAGTGGTGTCTGAGACCAAAGATACCAAAGTT CTGAGGCATTACACCAGCAGAAATTACAACTGCATGGCCCAGGAAAGGCGCCAATGGCAAAGAAACAGGAAGTGAT TCTTACAGTGGGGAACCCCTGGAAGCTGAGGATGCCAAAGCCGTAAGACTTAACATCTCCAAGTCATCATTCGAG GTGTTAATGCTGGAAGCTACAGAGAAGATGACAGGTTCCTCATTAATG**TGA** 

## 2930/6881 FIGURE 2706

MVEKEQRHSRNEWEGWYNGPKSLVSKQVKENCFKNPKHSVCEYDPGSSQNCQHSNTSWHQRPCSEVRDDVSKWSN
NSSELFFSFFFPLFLFCLTKNREMVFLKEEEKRTPTVRIEYKELLSDVKLKRASEEMSCKTYSQEGRVKGVTIPK
NPDSCPQEKDAIPKMNQSFHEQKSLVSRRQSLSPVLSLSSPDSMSFTTRSTFSTNYRSLGSVQAPSYGARPIDNA
HLAADDCRVKYETELAMHQSVEKDIHGLHKVIDDTNVTWLQVETQIEALKEELFHEEEPRIGNKRPTSSDCQLWV
DSGVVPMQPAKVGAAEMMLTEPRCTVQSSEVDLESMRNLKASLGNSLREVEACYTVKMEQLDGIVPHLESELAQT
WAEEQCQAQQYEALMNIKVKLEAEITTYCCLLKDGEDVNLGDTLDSSNSMQTIQKTTTCQTVDGKVVSETKDTKV
LRHYTSRNYNCMAQERRNGKETGSDSYSGEPLEAEDAKAVRLNISKSSFEVLMLEATEKMTGSSLM

ACAGAGCCCCGGCCGCCAGAGCGATGTTCCCGCAGAGCCGGCACCCGACGCCACCAGGCTGCAGGCCAGC CCTTCAAGTTCACTATCCCGGAGTCCCTGGACCGGATTAAAGAGGAATTCCAGTTCCTGCAGGCGCAGTATCACA GCCTTAAATTGGAATGTGAGAAACTGGCAAGTGAAAAGACAGAAATGCAGAGGCACTATGTGATGTATTATGAAA TGTCATATGGATTAAACATTGAAATGCACAAACAGACTGAAATCGCCAAGAGATTGAATACGATTTGTGCACAAG TCATCCCATTTCTGTCTCAGGAACATCAACAACAGGTGGCCCAGGCTGTTGAACGTGCCAAACAGGTGACCATGG CAGAATTGAATGCCATCATCGGGCAGCAGCAGTTGCAAGCTCAGCATCTTTCTCATGGCCACGGACCCCCAGTTC CCCTTACGCCTCACCCTTCGGGACTTCAGCCTCCTGGAATCCCGCCCCTCGGGGGCAGTGCCGGCCTTCTTGCGC TGTCTAGTGCTCTGAGTGGGCAGTCTCACTTGGCAATAAAAGATGACAAGAAGCACCACGATGCAGAGCACCACA GAGGTGAGAGGCCGGGCAAGAGTAATTCCCTCCTGGTCCCAGACAGTCTAAGAGGCACAGATAAACGCAGAAATG GACCTGAATTTTCCAATGACATCAAGAAAAGGAAGGTGGATGATAAGGACTCCAGCCACTATGACAGTGATGGTG ACAAAAGCGATGACAACTTAGTTGTGGATGTGTCTAATGAGGACCCTTCTTCTCCGCGAGCAAGCCCTGCCCACT CGCCCCGGGAAAATGGAATCGACAAAAATCGCCTGCTAAAGAAGGATGCTTCTAGCAGTCCAGCTTCCACGGCCT CCTCGGCAAGTTCCACTTCTTTGAAATCCAAAGAAATGAGCTTGCATGAAAAAGCCAGCACGCCTGTTCTGAAAT CCAGCACACCAACGCCTCGGAGCGACATGCCAACGCCGGGCACCAGGCCCACTCCAGGCCTCCGTCCAGGTCTCG GCAAGCCTCCAGCCATAGACCCCCTCGTTAACCAAGCGGCAGCTGGCTTGAGGACACCCCTGGCAGTGCCCGGCC CATATCCTGCTCCTTTTGGGATGGTCCCCCACGCTGGCATGAACGGCGAGCTGACCAGCCCAGGCGCTGCCTACG CCAGTTTACACAACATGTCGCCCCAGATGAGCGCCGCAGCCGCCGCGGCCGCCGTGGTGGCCTACGGGCGCTCCC GGAAACCTGCATACTCCTTCCACGTTACTGCAGACGGTCAGATGCAGCCTGTCCCTTTTCCCCCCGACGCCCTCA TCGGACCCGGATCCCCCGGCATGCTCGCCAGATCAACACCCTCAACCACGGGGAGGTGGTGTGCGCTGTGACCA TCAGCAACCCCACGAGACACGTGTACACAGGCGGGAAGGGCTGCGTCAAGGTCTGGGACATCAGCCACCCTGGCA ATAAGAGCCCTGTCTCCCAGCTCGACTGTCTGAACAGAGACAATTATATCCGTTCCTGTAAATTGCTACCCGATG GCTGCACTCTCATAGTGGGAGGGGAAGCCAGTACTTTGTCCATTTGGGACCTGGCGGCTCCAACCCCGCGCATCA AGGCGGAGCTGACGTCCTCGGCCCCGCCTGCTACGCCCTGGCCATCAGCCCCGATTCCAAGGTCTGCTTCTCAT GCTGCAGCGACGGCAACATCGCTGTGTGGGATCTGCACAACCAGACACTAGTGAGGCAATTCCAGGGCCACACAG ACGGAGCCAGCTGTATTGACATTTCTAATGATGGCACCAAGCTCTGGACGGGTGGTTTGGACAACACAGTCAGGT CCTGGGACCTGCGCGAGGGGCGGCAGCTGCAGCACCACGACTTCACCTCCCAGATCTTCTCCCTGGGGTACTGCC  $\tt CCACCGGGGAGTGGCAGTGGGCATGGAGAGCAGCAATGTGGAGGTGCTGCACGTGAACAAGCCTGACAAGT$ ACCAGCTGCACCTGCATGAGAGCTGCGTGCTGTCCCTGAAATTTGCTTACTGTGGTAAATGGTTTGTGAGTACTG GAAAAGATAACCTCCTCAATGCTTGGCGGACCCCCTATGGAGCCAGCATATTCCAGTCCAAAGAGTCCTCGTCAG TGCTTAGCTGTGACATCTCTGTGGATGATAAGTACATAGTCACTGGCTCGGGGGACAAGAAGGCTACAGTCTATG AAGTCATCTACTGAAAACATTATGTGGT

#### 2932/6881 FIGURE 2708

CGGCAGTCTCGCGCGGCTACTGCAGCACTGGGGTGTCAGTTGTTGGTCCGACCCAGAACGCTTCAGTTCTGCTCT GCAAGGATATATAATAACTGATTGGTGTGCCCGTTTAATAAAAGAAT<u>ATG</u>GAAACTGAACAGCCAGAAGAAACCT TCCCTAACACTGAAACCAATGGTGAATTTGGTAAACGCCCTGCAGAAGATATGGAAGAGGAACAAGCATTTAAAA GATCTAGAAACACTGATGAGATGGTTGAATTACGCATTCTGCTTCAGAGCAAGAATGCTGGGGCAGTGATTGGAA AAGGAGGCAAGAATATTAAGGCTCTCCGTACAGACTACAATGCCAGTGTTTCAGTCCCAGACAGCAGTGGCCCCG AGCGCATATTGAGTATCAGTGCTGATATTGAAACAATTGGAGAAATTCTGAAGAAAATCATCCCTACCTTGGAAG AGGGCCTGCAGTTGCCATCACCCACTGCAACCAGCCAGCTCCCGCTCGAATCTGATGCTGTGGAATGCTTAAATT ACCAACACTATAAAGGAAGTGACTTTGACTGCGAGTTGAGGCTGTTGATTCATCAGAGTCTAGCAGGAGGAATTA TTGGGGTCAAAGGTGCTAAAATCAAAGAACTTCGAGAGAACACTCAAACCACCATCAAGCTTTTCCAGGAATGCT GTCCTCATTCCACTGACAGAGTTGTTCTTATTGGAGGAAAACCCGATAGGGTTGTAGAGTGCATAAAGATCATCC TTGATCTTATATCTGAGTCTCCCATCAAAGGACGTGCACAGCCTTATGATCCCAATTTTTACGATGAAACCTATG ATTATGGTGGTTTTACAATGATGTTTGATGACCGTCGCGGACGCCCAGTGGGATTTCCCATGCGGGGAAGAGGTG GTTTTGACAGAATGCCTCCTGGTCGGGGTGGGCGTCCCATGCCTCCATCTAGAAGAGATTATGATGATATGAGCC CTCCACCACCACCACCTAGAGGGGGAGACCTCATGGCCTATGACAGAAGAGGGAGACCTGGAGACCGTTACGACG GCATGGTTGGTTCAGTGCTGATGAAACTTGGGACTCTGCAATAGATACATGGAGCCCATCAGAATGGCAGATGG CTTATGAACCACAGGGTGGCTCCGGATATGATTATTCCTATGCAGGGGGTCGTGGCTCATATGGTGATCTTGGTG GACCTATTATTACTACACAAGTAACTATTCCCAAAGATTTGGCTGGATCTATTATTGGCAAAGGTGGTCAGCGGA TTAAACAAATCCGTCATGAGTCGGGAGCTTCGATCAAAATTGATGAGCCTTTAGAAGGATCCGAAGATCGGATCA TTACCATTACAGGAACACAGGACCAGATACAGAATGCACAGTATTTGCTGCAGAACAGTGTGAAGCAGTATGCAG ATGTTGAAGGATTCTAATGCAAGATATTTTTTTTTTTTATAGTGTGAAGCAGTATTCTGGAAAGTTTTTCTAAG CTTCATAGGTGTTCTGCATTTGAGGTGTAGTGAAATCTTTGCTGTTCACCAGATGTAATGTTTTAGTTCCTTACA TATTTTTCGTTATTGTTGGTGGTTTAAAAAATTCCCCCCATGTAATTATTGTGAACACCTTGCTTTGTGGTCACT GTAACATTTGGGGGGTGGGACAGGGAGAAAGTAACAATAGTCCACATGTCCCTGGCATCTGTTCAGAGCAGTG TTAATTTTCAGCTCCTCTGTTGGACATATAAGTGCATCTCTTGTTGGACATAGGCAAAATAACTTGGCAAACTTA AAGCTGGGGATTTTTTGTTTGTTTTTTGCAAATGCTTGCCCCTACTTTTCAACAATTTTCTATGTTAGTTGTGAAG AACTAAGGTGGGGAGCAGTACTACAAGTTGAGTAATGGTATGAGTATATACCAGAATTCTGATTGGCAGCAAGTT TATTAATCAGAATAACACTTGGTTATGGAAGTGACTAATGCTGAAAAAATTGATTATTTTATTAGATAATTTCT TTTCCATTGTATGCAAATTGAAAGAAAAAGATGTACCATTTCTCTGTTGTATGTTGGATTATGTAGGAATGTTTG TGTACAATTCAAAAAAAAAAAAAGTTCCTGTGGATGTTTTGTGTAGTATCTTGGCATTTGTATTGA TAGTTAAAATTCACTTCCAAATAAATAAAACACCCATGATGCTAG

METEQPEETFPNTETNGEFGKRPAEDMEEEQAFKRSRNTDEMVELRILLQSKNAGAVIGKGGKNIKALRTDYNAS
VSVPDSSGPERILSISADIETIGEILKKIIPTLEEGLQLPSPTATSQLPLESDAVECLNYQHYKGSDFDCELRLL
IHQSLAGGIIGVKGAKIKELRENTQTTIKLFQECCPHSTDRVVLIGGKPDRVVECIKIILDLISESPIKGRAQPY
DPNFYDETYDYGGFTMMFDDRRGRPVGFPMRGRGGFDRMPPGRGGRPMPPSRRDYDDMSPRRGPPPPPPGRGGRG
GSRARNLPLPPPPPPRGGDLMAYDRRGRPGDRYDGMVGFSADETWDSAIDTWSPSEWQMAYEPQGGSGYDYSYAG
GRGSYGDLGGPIITTQVTIPKDLAGSIIGKGGQRIKQIRHESGASIKIDEPLEGSEDRIITITGTQDQIQNAQYL
LQNSVKQYADVEGF

AAAAAGGAACTGGGAGCGCGCCGCGGGGTTCCTGTCCTTACAGTTGCGCTGCCCAGGGACCGATGTTGCGCGAG GAAAATGCGGGACGCCCAGGTCGGTGCTCGGCCCAGACTTATGCCCGTGTTTTCACAGCCCACACTCGTGCCCGA AGCCCCTTACCCCGCCCCGGGCTGTGGTCTGTGGGCTGTGGGACGAGCTGCGGCGCGGGCCATTTCTGAGCAGTG GAGGTTTCAAGTAATCCACTAACAACCAGTTCCAAATTCTGTCATCAAATCCTGTGCTGCTGTTCCTCGTGGTAA TAGATGCATATTATTTCTTTTATTTAAAAGAAATGAATGTGACTAGTATTGCATTAAGAGCTGAAACTTGGCTTT TAGCTGCATGGCATGTTAAAGTACCTCCGATGTGGCTGGAAGCTTGTATTAACTGGATTCAAGAAGAAAATAATA ATGTTAACTTGAGTCAGGCCCAAATGAATAAACAAGTGTTTGAGCAGTGGCTCCTTACTGATCTGAGGGATTTGG AGCATCCTCTTTTACCCGATGGCATTTTAGAAATTCCAAAAGGAGAATTAAATGGATTTTATGCTCTGCAGATTA ATTCCTTGGTTGATGTAAGTCAGCCTGCATACTCCCAGATACAGAAGTTGAGAGGAAAGAATACAACAAATGATC TAGTTACAGCTGAAGCACAAGTAACCCCAAAACCTTGGGAAGCAAAGCCTTCACGAATGTTGATGCTGCAGCTAA CTGATGGAATCGTACAAATACAGGGAATGGAATATCAGCCTATTCCAATTCTTCATAGTGATCTTCCTCCAGGTA CAAAAATTTTGATTTATGGAAATATATCTTTCCGTCTTGGTGTTCTCTTATTGAAACCAGAAAACGTGAAAGTGT TAGGAGGTGAAGTAGATGCTCTTTTAGAAGAATATGCCCAAGAAAAAGTACTTGCAAGATTAATAGGGGAACCTG ATCTTGTAGTTTCAGTCATACCAAACAATTCTAACGAAAACATTCCCAGAGTTACAGATGTTCTAGATCCTGCAT TAGGTCCTTCTGATGAAGAACTCTTGGCAAGTCTTGATGAAAATGATGAGCTTACAGCAAATAATGACACTTCCT CAGAACGATGTTTCACCACAGGTAGTTCCTCAAATACCATTCCCACAAGACAGTCAAGTTTTGAGCCAGAATTTG CTTGCAAAAATGGAAACAATAATTGGAGTGAAAAAAATGTATCTGAACAAATGACTAATGAAGACAAATCATTTG GTTGTCCATCTGTTAGAGACCAAAACAGGAGTATTTTTTCAGTTCATTGTAATGTACCCTTAGCCCATGATTTTA ATAAAATATTAAATAGAGAGGTGGTCAACTATGTACAGAAAAGGAATTCACAAATTTCTAATGAAAATGATTGTA ATTTACAGAGTTGTTCTTTAAGATCATCAGAGAATAGCATTAATCTTTCTATTGCCATGGATTTGTATTCTCCAC CCTTTGTCTATTTGTCTGTTCTAATGGCCAGCAAACCAAAGGAAGTTACAACAGTGAAAGTGAAAGCATTTATTG TAACCTTAACTGGAAATCTCTCAAGTTCTGGTGGTATTTGGAGTATAACTGCAAAGGTGTCTGATGGTACTGCAT ATCTAGATGTAGACTTTGTGGATGAAATACTTACTAGCTTGATAGGGTTCTCAGTACCAGAAATGAAACAGTCAA AAAAGGATCCTCTTCAATACCAAAAGTTCCTGGAAGGGTTGCAGAAATGTCAAAGAGATCTAATAGATTTGTGCT GTCTAATGACTATTTCATTTAATCCTTCCTTGTCTAAAGCAATGGTACTGGCATTACAAGATGTTAATATGGAAC ACCTTGAGAATCTAAAGAAGCGGTTAAATAAATAATTAAACTAAAATAGTATTAGGAACAATTAAAAAACAACAAG GAAATATTTAGAATTTGTTCACAATTTTACTTATGATACTTTGTGTAAAAAGGAAAAATGAAATTTCATAGCTTA TTTTTTTTTAATGTCAGGGTATTGCTCTGTTGCCCAGGCTAGAGTGCAGTGGCATGATCATAGGTTATTGCATCA ACCTCTTGAGCTCAAGCGATCCTCCTGCCTTAGCCTCTTGAGTTGCTGGGACTATAGGCATGTACCACCATGCCC AGCTAATTTATAATTACTATTATTGTTTTGTAGGGACAGAGTTTTGCTATGTTGCCCAGATTGGTCTCAAACTCC TGGCCTCTCACTCCTGCCGTCATGGCCTCCAAAGTTTACTTTTTTTAAAAGTAACTGTTAGATGGAGGAATATGG TGACCCACTATTGTTGAGAAATTTGTTTTCCACTTGTCACGTCACATAAGATGATTGCTAAAAATATTGTACTGGT GTTCGGTGGTGAGTCATATTTTTGAAAGTTAATAATTATAAATAGGTAATTTCCTTCTAATATGTTGGTACTGTC TATGGCCATACCACCCTGAACATGCCTGAGCTTGTCATAATATGTTGAGTACCCAAAAGATTTGTTTATATTGTT **AATCTTAGGGAAAAAAATTAAAATCCAGTAGATCAGAACATCAGGCTTTCAGATACAAATTGATTTACTGGTTT** TTATTTTGCTGATTATAATATTTGGTATATTTAAGGTAATCTAGTTAACTAGATGCTATTTCATAGATTATATTG AATGATTTAAAACTTTATTTTCAAGGATAGTTTATTTTAAATGGCATATTGAAAACATCATTATTAAGATCCAGT AGGTAGGACATTTATTGGATTAAAATGAAGCATTTATCTATGTCTTTAGGTGTCATTGTTCCCTTTCTGAATTAG GTGCTTTGAATTTTAAAACATTAAACAAATCCTTAAATAAC

TGCTCCGGAGGGCACGGGCTCCGTAGTCACCAACTGCAAGGCCCCCTCCCCCTGCGGGCGCTCCCCTGGCACAAT TCGCGTTCGAGAGTGACCTGCACTCGCTGCTTCAACTGGATGCACCCCATGCCACCCCTGCTCGCTGGC AGCGCAAAGCCAAGAAAGCCACAGGCCCGGCCCCTCACCCATGCGGGCCGCCAACCGATCCCACAGCGCCAGCA GGACTCCGGGCCGAACTCCTGGCAAATCCAGTTCCAAGGTTCAGACCACTCCTAGCAAACCTGGCGGTGACCGCT ATATCCCCCATCGCAGTGCTGCCCAGATGGAGGTTGCCAGCTTCCTCCTGAGCAAGGAACCAGCCTGAAAACA GCCAGACGCCCACCAAGAAGGAACATCAGAAAGCCTGGACTTTGAACCTGAACGGTTTTGATGTAGAGGAAGCCA AGATCCTTCGGCTCAGTGGAAAACCACAAAATGCGCCAGAGGGTTACCAGAACAGACTGAAAGTACTCTACAGCC CTGAAATCCGAAATGACTACCTGAATCTTGTGGACTGGAGCTCTGGGAATGTATTGGCCGTGGCGCTGGACA ACAGTGTGTACCTGTGGAGCGCAAGCTCTGGTGACATCCTGCAGCTTTTGCAAATGGAGCAGACTGGGAAATATG TATCCTCTGCGGCCTGGATCAAAGAGGGCAACTACTTGGCTGTGGGCATCAGCAGTGCTGAGGTGCAGCTTTGGG ATGTGCAGCAGCAGAAACGGCTTCGAAATATGACCATTCACTCTGCCCGAGTGGGCTCCCTAAGCTGGAACAGCT ATATCCTATCCAGTGGTTCACATTCTGGCCACATCCACCACCATGATGTTCGGGTAGCAGAACACCACGTGGCCA ATGATAACTTGGTCAAAGTGTGGCCTAGTGCTCTTGGAGAGGGTGGCTGGGTTCCTCTGCAGACATTCACCCTTC AAGGGGCTGTCAAGGCCGTAGCATGGTGTCCCTGGAAGTCCAATGTCCCGGCAACAGGAGGGGGCACCAGTGATC GACACATTTGCATCTGGAACGTGTGCTCTGGGGCCTGTCTGAGTGCCGTGGATGCCCTTTCCCAGGTGTGCTCCA  $\verb|CCCTCTGGTCTCCCCACTACAAGGAGCTCATCTCAGGCCATGGCTTTGCACAGAACCAGCTGGTTATTTGGAAGT|\\$ ACCCAACCATGGCCAAGGTGGCTGAACTCAAAGGTCACACCATCCCGGGTCCTGACTCTGACCATGAGCCCAGATG GGGCCACAGTGGCATCTGCAGCAGCAGATGAGACCCCGAGGCTATGGCACTGTTTTGAGTTGGACCCTGTGTGGC GGCGGGAGCGGGAGAAGGCCAGTGCAGCCAAAAGCAGCTTCATCCACCAAGGCATCCGCTGAAGACCAACCCCTC GCCTCAGTTGTTTTTTTTTTTTTTTAATAAAGTCATGTCTCCCTTCA

 ${\tt MLMPKKNRIAIYELLFKEGVMVAKKDVHMPKHPELADKNVPNLHVMKAMQFLKSRGYVKEQFAWRHFYWYLTNEG}\\ {\tt IQYLRDYLHLPPEIVPATLCRSRPETGRPRPKGLEIERPTRLARGEADRDTHR}$ 

## 2938/6881 FIGURE 2714

# 2939/6881 FIGURE **2715**

MAHKQIYYSDKYFDEHYEYRHVMLPRELSKQVPKTHLMSEEEWRRLGVQQSLGWVHYMIHEPEPHILLFRRPLPK DQQK

## 2940/6881 FIGURE 2716A

 $\tt CGGGCAGCGTGGACCCCGGATGAGTTGCTTTTAGGCTTGCTGGCCCGCGGGGCTGTCCAGGCACGCGAGGCCCCT$  ${\tt CAACAAA}$  ATCCTTCAACAAGTTCCAGAAAACATAAATTTTCCTGCTGAAGAAGAGAAAATCTTGGAGTTTTGGAC TGAATTTAATTGTTTTCAGGAATGCTTAAAGCAATCAAAACATAAACCAAAATTTACCTTCTATGATGGTCCTCC TTTTGCAACTGGACTGCCTCACTATGGACATATACTTGCGGGTACAATTAAAGATATAGTTACAAGATATGCTCA  ${\tt CCAGAGTGGGTTTCATGTTGACAGAAGATTTGGATGGGATTGCCATGGCTTACCTGTGGAATATGAAATTGATAA}$ GACACTGGGAATCAGAGGACCAGAGGATGTGGCCAAAATGGGGATTACAGAGTATAACAATCAGTGCCGAGCAAT TGTGATGAGATATTCTGCTGAGTGGAAGTCTACTGTTAGCAGACTTGGCCGATGGATTGACTTTGACAATGACTA TAAAACTCTGTATCCACAATTCATGGAATCAGTCTGGTGGGTCTTCAAACAACTCTATGATAAAGGCCTTGTTTA TAGAGGTGTGAAAGTCATGCCCTTCTCTACGGCATGTAACACTCCACTTTCCAACTTCGAGTCACACAGAATTA TAAGGATGTTCAAGATCCTTCAGTATTTGTAACTTTCCCTTTGGAAGAAGATGAAACTGTATCTTTAGTTGCTTG AGATGTTGCCAGAGGACGATTACTCATTTTAATGGAAGCCAGATTGTCAGCCCTCTATAAATTGGAGAGTGACTA TGAGATCCTTGAAAGATTTCCTGGTGCCTATCTTAAAGGCAAGAAGTACAGGCCCCTGTTTGACTATTTCCTGAA TGTTTGCCCTGTGGATGCTTCAGGCTGCTTCACAACGGAGGTGACAGATTTCGCAGGACAGTATGTGAAGGATGC TTTTTGCTGGAGATCAGACACTCCTCTAATTTACAAAGCAGTGCCCAGCTGGTTTGTGCGAGTGGAGAACATGGT GGACCAGCTCCTAAGGAACAATGACCTGTGCTACTGGGTCCCAGAGTTGGTACGAGAAAAACGATTTGGAAATTG GCTGAAAGATGCACGTGACTGGACAATTTCCAGAAACAGATACTGGGGCACCCCCATCCCACTGTGGGTCAGCGA TGACTTTGAGGAGGTGGTATGCATTGGGTCAGTGGCGGAACTTGAAGAACTGTCAGGAGCAAAGATCTCAGATCT CCACAGAGAGAGTGTTGACCACCTGACCATTCCTTCACGCTGTGGGAAGGGATCCTTGCACCGCATCTCTGAAGT GTTTGACTGTTGGTTTGAGAGTGGCAGCATGCCCTATGCTCAGGTTCATTACCCGTTTGAAAACAAGAGGGAGTT TGAGGATGCTTTTCCTGCAGATTTCATTGCCGAGGGCATCGACCAAACCAGAGGATGGTTTTATACCCTGCTGGT GCTGGCCACGGCCCTCTTTGGACAACCGCCTTTCAAGAACGTAATTGTGAATGGGCTTGTCCTGGCAAGTGATGG CCAAAAAATGAGCAAACGGAAAAAGAATTATCCAGATCCAGTTTCCATCATCAGAAGTATGGTGCTGATGCCCT CAGATTATATCTGATTAACTCCCCTGTGGTGAGAGCAGAAAACCTCCGCTTTAAAGAAGAGGGTGTGCGGGACGT CCTTAAGGATGTACTGCTCCCATGGTACAATGCCTATCGCTTCTTAATCCAGAACGTTCTGAGGCTCCAGAAGGA GGAAGAAATAGAATTTCTCTACAATGAGAACACGGTTAGAGAAAGCCCCCAACATTACAGACCGGTGGATCCTGTC  $\tt CTTCATGCAGTCTCTATTGGCTTCTTTGAGACTGAAATGGCAGCTTATAGGCTTTATACTGTGGTGCCTCGCCT$ GGTCAAGTTTGTAGATATTCTGACCAATTGGTATGTTAGAATGAACCGCAGAAGATTAAAGGGTGAAAATGGGAT GGAGGATTGTGTCATGGCCCTAGAAACCTTGTTTAGTGTTCTGCTTTCTCTTTTGCAGACTTATAGCTCCCTACAC ACCTTTTCTCACTGAATTGATGTACCAGAATCTAAAGGTGCTGATTGACCCTGTTTCTGTTCAGGACAAGGACAC TCAGATGCAGTCTGTGATTGAACTTGGAAGAGTGATCAGAGACCGAAAAACTATTCCCATAAAGTATCCTTTGAA ACTCAATGTTCGAAAAGTTACACTGTCTACAGATAAAAACAAGTATGGCATTCGGCTAAGGGCAGAACCAGATCA GCTGGAGCAGTTCCAGAAGACTGGGACCATTGTTGTGGAAGGCCATGAATTGCACGATGAAGACATCCGCCTCAT GTACACCTTTGATCAGGCCACAGGTGGGACTGCGCAATTTGAAGCACACTCAGATGCTCAGGCTTTGGTCCTCTT AGATGTCACTCCTGACCAGTCAATGGTAGATGAAGGAATGGCTCGGGAAGTCATCAATCGCATACAGAAACTTCG CAAAAAGTGCAATCTGGTTCCAACTGATGAAATCACAGTGTACTATAAAGCAAAGTCTGAAGGAACATATCTGAA TAGTGTTATTGAAAGCCACACAGAGTTCATATTTACCACCATAAAGGCTCCCTTGAAACCATATCCAGTTTCTCC ATCGGATAAAGTCCTTATTCAAGAAAAAACACAGTTGAAGGGATCTGAACTGGAAATTACACTCACCAGAGGATC TTCCCTTCCTGGTCCTGCTTGTGCATATGTCAATCTTAACATTTGTGCAAATGGCAGTGAACAAGGTGGAGTATT GCTCCTGGAAAATCCAAAAGGTGACAATAGGTTGGACCTTTTAAAGCTGAAGAGTGTTGTCACTAGCATTTTTGG TGTGAAAAATACAGAGCTGGCTGTCTTCCATGATGAAACAGAAATACAAAACCAAACTGACTTACTGAGTCTTAG TGGAAAAACACTTTGTGTGACTGCAGGATCGGCTCCCTCTCTGATCAACAGTTCTAGTACTCTTTTTTTCAGTA

# FIGURE 2716B

#### 2942/6881 FIGURE 2717

MLQQVPENINFPAEEEKILEFWTEFNCFQECLKQSKHKPKFTFYDGPPFATGLPHYGHILAGTIKDIVTRYAHQS GFHVDRRFGWDCHGLPVEYEIDKTLGIRGPEDVAKMGITEYNNQCRAIVMRYSAEWKSTVSRLGRWIDFDNDYKT LYPQFMESVWWVFKQLYDKGLVYRGVKVMPFSTACNTPLSNFESHQNYKDVQDPSVFVTFPLEEDETVSLVAWTT TPWTLPSNLAVCVNPEMQYVKIKDVARGRLLILMEARLSALYKLESDYEILERFPGAYLKGKKYRPLFDYFLKCK ENGAFTVLVDNYVKEEEGTGVVHQAPYFGAEDYRVCMDFNIIRKDSLPVCPVDASGCFTTEVTDFAGQYVKDADK SIIRTLKEQGRLLVATTFTHSYPFCWRSDTPLIYKAVPSWFVRVENMVDQLLRNNDLCYWVPELVREKRFGNWLK DARDWTISRNRYWGTPIPLWVSDDFEEVVCIGSVAELEELSGAKISDLHRESVDHLTIPSRCGKGSLHRISEVFD  ${\tt CWFESGSMPYAQVHYPFENKREFEDAFPADFIAEGIDQTRGWFYTLLVLATALFGQPPFKNVIVNGLVLASDGQK}$  ${\tt MSKRKKNYPDPVSIIQKYGADALRLYLINSPVVRAENLRFKEEGVRDVLKDVLLPWYNAYRFLIQNVLRLQKEEE}$ IEFLYNENTVRESPNITDRWILSFMQSLIGFFETEMAAYRLYTVVPRLVKFVDILTNWYVRMNRRRLKGENGMED CVMALETLFSVLLSLCRLIAPYTPFLTELMYQNLKVLIDPVSVQDKDTLSIHYLMLPRVREELIDKKTESAVSQM QSVIELGRVIRDRKTIPIKYPLKEIVVIHQDPEALKDIKSLEKYIIEELNVRKVTLSTDKNKYGIRLRAEPDHMV  ${ t LGKRLKGAFKAVMTSIKQLSSEELEQFQKTGTIVVEGHELHDEDIRLMYTFDQATGGTAQFEAHSDAQALVLLDV}$ TPDQSMVDEGMAREVINRIQKLRKKCNLVPTDEITVYYKAKSEGTYLNSVIESHTEFIFTTIKAPLKPYPVSPSD KVLIQEKTQLKGSELEITLTRGSSLPGPACAYVNLNICANGSEQGGVLLLENPKGDNRLDLLKLKSVVTSIFGVK NTELAVFHDETEIQNQTDLLSLSGKTLCVTAGSAPSLINSSSTLLCQYINLQLLNAKPQECLMGTVGTLLLENPL GQNGLTHQGLLYEAAKVFGLRSRKLKLFLNETQTQEITEDIPVKTLNMKTVYVSVLPTTADF

## 2943/6881 FIGURE 2718A

 $\tt CGGGCAGCGTGGACCCCGGATGAGTTGCTTTTAGGCTTGCTGGCCCGCGGGGCTGTCCAGGCACGCGAGGCCCCT$  $\verb|TTATGGTCGCCTTTTTGAATGAGCAACAAAATGCTTCAACAAGTTCCAGAAAACATAAATTTTCCTGCTGAAGAA|$ GAGAAAATCTTGGAGTTTTGGACTGAATTTAATTGTTTTCAGGAATGCTTAAAGCAATCAAAAACATAAACCAAAA TTTACCTTCTATGATGGTCCTCCTTTTGCAACTGGACTGCCTCACTATGGACATATACTTGCGGGTACAATTAAA GATATAGTTACAAGATATGCTCACCAGAGTGGGTTTCATGTTGACAGAAGATTTGGATGGGATTGCCATGGCTTA CCTGTGGAATATGAAATTGATAAGACACTGGGAATCAGAGGACCAGAGGATGTGGCCAAAATGGGGATTACAGAG TATAACAATCAGTGCCGAGCAATTGTGATGAGATATTCTGCTGAGTGGAAGTCTACTGTTAGCAGACTTGGCCGA TGGATTGACTTTGACAATGACTATAAAACTCTGTATCCACAATTCATGGAATCAGTCTGGTGGGTCTTCAAACAA CTCTATGATAAAGGCCTTGTTTATAGAGGTGTGAAAGTCATGCCCTTCTCTACGGCATGTAACACTCCACTTTCC AACTTCGAGTCACACCAGAATTATAAGGATGTTCAAGATCCTTCAGTATTTGTAACTTTCCCTTTGGAAGAAGAT GAAATGCAATATGTGAAAATTAAAGATGTTGCCAGAGGACGATTACTCATTTTAATGGAAGCCAGATTGTCAGCC CTCTATAAATTGGAGAGCTATGAGATCCTTGAAAGATTTCCTGGTGCCTATCTTAAAGGCAAGAAGTACAGG CCCCTGTTTGACTATTTCCTGAAGTGTAAAGAGAATGGCGCTTTCACTGTGCTTGTTGACAACTATGTGAAGGAA GAAGAAGGCACAGGGGTTGTCCACCAAGCTCCTTACTTCGGTGCTGAGGACTATCGGGTCTGTATGGACTTTAAC ATTATTCGGAAAGACTCACTCCCTGTTTGCCCTGTGGATGCTTCAGGCTGCTTCACAACGGAGGTGACAGATTTC GCAGGACAGTATGTGAAGGATGCTGACAAAAGTATCATCAGGACTTTGAAGGAACAAGGCCGACTTCTGGTTGCC ACCACCTTCACTCACAGCTACCCTTTTTGCTGGAGATCAGACACTCCTCTAATTTACAAAGCAGTGCCCAGCTGG TTTGTGCGAGTGGAGAACATGGTGGACCAGCTCCTAAGGAACAATGACCTGTGCTACTGGGTCCCAGAGTTGGTA CGAGAAAAACGATTTGGAAATTGGCTGAAAGATGCACGTGACTGGACAATTTCCAGAAACAGATACTGGGGCACC CCCATCCCACTGTGGGTCAGCGATGACTTTGAGGAGGTGGTATGCATTGGGTCAGTGGCGGAACTTGAAGAACTG TCAGGAGCAAAGATCTCAGATCTCCACAGAGAGAGTGTTGACCACCTGACCATTCCTTCACGCTGTGGGAAGGGA TCCTTGCACCGCATCTCTGAAGTGTTTGACTGTTGGTTTGAGAGTGGCAGCATGCCCTATGCTCAGGTTCATTAC CCGTTTGAAAACAAGAGGGAGTTTGAGGATGCTTTTCCTGCAGATTTCATTGCCGAGGGCATCGACCAAACCAGA GGATGGTTTTATACCCTGCTGGTGCTGGCCACGGCCCTCTTTGGACAACCGCCTTTCAAGAACGTAATTGTGAAT GGGCTTGTCCTGGCAAGTGATGGCCAAAAAATGAGCAAAACGGAAAAAGAATTATCCAGATCCAGTTTCCATCATC CAGAAGTATGGTGCTGATGCCCTCAGATTATATCTGATTAACTCCCCTGTGGTGAGAGCAGAAAACCTCCGCTTT AAAGAAGAGGGTGTGCGGGACGTCCTTAAGGATGTACTGCTCCCATGGTACAATGCCTATCGCTTCTTAATCCAG AACGTTCTGAGGCTCCAGAAGGAGGAAGAAATAGAATTTCTCTACAATGAGAACACGGTTAGAGAAAGCCCCCAAC ATTACAGACCGGTGGATCCTGTCCTTCATGCAGTCTCTCATTGGCTTCTTTGAGACTGAAATGGCAGCTTATAGG CTTTATACTGTGGTGCCTCGCCTGGTCAAGTTTGTAGATATTCTGACCAATTGGTATGTTAGAATGAACCGCAGA AGATTAAAGGGTGAAAATGGGATGGAGGATTGTGTCATGGCCCTAGAAACCTTGTTTAGTGTTCTGCTTTCTCTT TGCAGACTTATAGCTCCCTACACACCTTTTCTCACTGAATTGATGTACCAGAATCTAAAGGTGCTGATTGACCCT AAGAAAACAGAGAGTGCAGTATCTCAGATGCAGTCTGTGATTGAACTTGGAAGAGTGATCAGAGACCGAAAAACT ATTCCCATAAAGTATCCTTTGAAAGAAATTGTGGTTATCCATCAAGATCCAGAAGCTCTTAAAGATATCAAGTCT TTGGAGAAGTATATCATTGAGGAACTCAATGTTCGAAAAGTTACACTGTCTACAGATAAAAACAAGTATGGCATT CGGCTAAGGGCAGAACCAGATCACATGGTCCTGGGGAAGCGTCTGAAGGGAGCCTTTAAGGCAGTGATGACGTCC ATCAAGCAGTTGAGCAGTGAGGAGCTGGAGCAGTTCCAGAAGACTGGGACCATTGTTGTGGAAGGCCATGAATTG CACGATGAAGACATCCGCCTCATGTACACCTTTGATCAGGCCACAGGTGGGACTGCGCAATTTGAAGCACACTCA GATGCTCAGGCTTTGGTCCTCTTAGATGTCACTCCTGACCAGTCAATGGTAGATGAAGGAATGGCTCGGGAAGTC ATCAATCGCATACAGAAAACTTCGCAAAAAGTGCAATCTGGTTCCAACTGATGAAATCACAGTGTACTATAAAGCA AAGTCTGAAGGAACATATCTGAATAGTGTTATTGAAAGCCACACAGAGTTCATATTTACCACCATAAAGGCTCCC TTGAAACCATATCCAGTTTCTCCATCGGATAAAGTCCTTATTCAAGAAAAAACACAGTTGAAGGGATCTGAACTG GAAATTACACTCACCAGAGGATCTTCCCTTCCTGGTCCTGCTTGTGCATATGTCAATCTTAACATTTGTGCAAAT GGCAGTGAACAAGGTGGAGTATTGCTCCTGGAAAATCCAAAAGGTGACAATAGGTTGGACCTTTTAAAGCTGAAG

#### 2944/6881 FIGURE 2718B

#### 2945/6881 FIGURE 2719

t MLQQVPENINFPAEEEKILEFWIEFNCFQECLKQSKHKPKFTFYDGPPFATGLPHYGHILAGTIKDIVTRYAHQSGFHVDRRFGWDCHGLPVEYEIDKTLGIRGPEDVAKMGITEYNNQCRAIVMRYSAEWKSTVSRLGRWIDFDNDYKT  ${\tt LYPQFMESVWWVFKQLYDKGLVYRGVKVMPFSTACNTPLSNFESHQNYKDVQDPSVFVTFPLEEDETVSLVAWTT}$ TPWTLPSNLAVCVNPEMQYVKIKDVARGRLLILMEARLSALYKLESDYEILERFPGAYLKGKKYRPLFDYFLKCK  ${\tt ENGAFTVLVDNYVKEEEGTGVVHQAPYFGAEDYRVCMDFNIIRKDSLPVCPVDASGCFTTEVTDFAGQYVKDADK}$ SIIRTLKEQGRLLVATTFTHSYPFCWRSDTPLIYKAVPSWFVRVENMVDQLLRNNDLCYWVPELVREKRFGNWLK DARDWTISRNRYWGTPIPLWVSDDFEEVVCIGSVAELEELSGAKISDLHRESVDHLTIPSRCGKGSLHRISEVFD  ${\tt CWFESGSMPYAQVHYPFENKREFEDAFPADFIAEGIDQTRGWFYTLLVLATALFGQPPFKNVIVNGLVLASDGQK}$ MSKRKKNYPDPVSIIQKYGADALRLYLINSPVVRAENLRFKEEGVRDVLKDVLLPWYNAYRFLIQNVLRLQKEEE IEFLYNENTVRESPNITDRWILSFMQSLIGFFETEMAAYRLYTVVPRLVKFVDILTNWYVRMNRRRLKGENGMED CVMALETLFSVLLSLCRLIAPYTPFLTELMYQNLKVLIDPVSVQDKDTLSIHYLMLPRVREELIDKKTESAVSQM QSVIELGRVIRDRKTIPIKYPLKEIVVIHQDPEALKDIKSLEKYIIEELNVRKVTLSTDKNKYGIRLRAEPDHMV LGKRLKGAFKAVMTSIKQLSSEELEQFQKTGTIVVEGHELHDEDIRLMYTFDQATGGTAQFEAHSDAQALVLLDV  ${\tt TPDQSMVDEGMAREVINRIQKLRKKCNLVPTDEITVYYKAKSEGTYLNSVIESHTEFIFTTIKAPLKPYPVSPSD}$ KVLIQEKTQLKGSELEITLTRGSSLPGPACAYVNLNICANGSEQGGVLLLENPKGDNRLDLLKLKSVVTSIFGVK  ${\tt NTELAVFHDETEIQNQTDLLSLSGKTLCVTAGSAPSLINSSSTLLCQYINLQLLNAKPQECLMGTVGTLLLENPL}$ GQNGLTHQGLLYEAAKVFGLRSRKLKLFLNETQTQEITEDIPVKTLNMKTVYVSVLPTTADF

## 2946/6881 FIGURE 2720A

 $\tt TGAGGAGGGCCCGGCCTGCGAGAGCCTCAGTGGGAGCCGGCTCAGCCCTCGGCCACC \underline{ATG} \texttt{TCGGCGCCGTCGGAG}$ GAGCTGGCCGAGACCACGCGTGAGAAGATCCAGGCGGCCGAGTACGGGCTGGCGGTGCTCGAGGAGAAGCACCAG CTCAAGCTGCAGTTCGAGGAGCTCGAGGTGGACTATGAGGCTATCCGCAGCGAGATGGAGCAGCTCAAGGAGGCC TTTGGACAAGCACACAAACCACAAGAAGGTGGCTGCTGACGGAGAGCCCGGGAGGAGAGCCTGATCCAGGAG TCGGCCTCCAAGGAGCAGTACTACGTGCGGAAGGTGCTAGAGCTGCAGACGGAGCTGAAGCAGTTGCGCAATGTC CTCACCAACACGCAGTCGGAGAATGAGCGCCTGGCCTCTGTGGCCCAGGAGCTGAAGGAGATCAACCAGAATGTG GAGATCCAGCGTGGCCGCCTGCGGGATGACATCAAGGAGTACAAATTCCGGGAAGCTCGTCTGCTGCAGGACTAC CTCAAGGAGATCTCAGAGCGGCAGCTGGAGGAGGCGCTGGAGACCCTGAAGACGGAGCGCGAACAGAAGAACAGC CTGCGCAAGGAGCTGTCACACTACATGAGCATCAATGACTCCTTCTACACCAGCCACCTGCATGTCTCGCTGGAT GGCCTCAAGTTCAGTGACGATGCTGCCGAGCCCAACAACGATGCCGAGGCCCTGGTCAATGGCTTTGAGCACGGC GGCCTGGCCAAGCTGCCACTGGACAACAAGACCTCCACGCCCAAGAAGGAGGGCCTCGCACCGCCCTCCCCAGC CTCGTCTCCGACCTACTCAGTGAGCTCAACATCTCTGAGATCCAGAAGCTGAAGCAGCAGCTGATGCAGATGGAG CGGGAAAAGGCGGGCCTGCTGGCAACGCTGCAGGACACACAGAAGCAGCTGGAGCACACGCGGGGCTCCCTGTCA GAACAGCAGGAGAAGGTGACCCGCCTCACAGAGAATCTGAGTGCCCTGCGGCGCCTGCAGGCCAGCAAGGAGCGG CAGACAGCCCTGGACAACGAGAAGGACCGTGACAGCCATGAGGATGGGGACTACTACGAGGTGGACATCAACGGG CCTGAGATCTTGGCCTGCAAGTACCATGTGGCTGTGGCTGAGGCTGGCGAGCTCCGCGAGCAGCTCAAGGCACTG CGCAGCACGCACGAGGCTCGTGAGGCCCAGCACGCCGAGGAGAAGGGCCGCTATGAGGCTGAGGGCCAGGCACTC ACGGAGAAGGTCTCCCTGCTAGAGAAGGCCAGCCGCCAGGACCGCGAGCTGCTGGCCCGGCTGGAGAAGGAGCTA AAGAAGGTGAGCGACGTCGCCGGCGAGACACAGGGCAGCCTGAGTGTGGCCCAGGATGAGCTGGTGACCTTCAGT GAGGAGCTGGCCAATCTCTACCACCACGTGTGCATGTGCAACAATGAGACACCCAACCGTGTCATGCTGGACTAC CCCTCGCCTGGCTCCTCACTGCCATCACCCCTGAGTGACCCACGCCGGGAGCCCATGAACATCTACAACCTGATC GCTATCATCCGTGACCAGATCAAGCACCTGCAGGCAGCCGTGGACCGCACCACGGAGCTGTCACGCCAGCGCATT GCCTCTCAGGAGCTGGGCCCCGCCGTGGACAAGGACAAGGAAGCGCTTATGGAGGAGATCCTCAAGCTGAAGTCG CTGCTCAGCACCAAGCGGGAGCAGATCACCACGCTGCGCACTGTGCTCAAGGCCAACAAGCAGACGGCCGAGGTG GCCCTTGCCAACCTGAAGAGCAAGTATGAGAATGAGAAGGCCATGGTTACCGAGACCATGATGAAGCTGCGCAAT GAGCTCAAGGCCCTCAAGGAGGACGCAGCCACCTTCTCCTCGCTGCGTGCTATGTTTGCCACCAGGTGTGACGAG TACATTACACAGCTGGATGAGATGCAGCGGCAGCTGGCGGCTGCTGAGGACGAGAAGAAGACGCTGAACTCGCTG CTGCGCATGGCCATCCAGCAGAAGCTGGCGCTGACCCAGCGGCTGGAGCTGCTCGAGCTGGACCATGAGCAGACC CGGCGTGGCCGAAAGCCGCCCCGAAGACCAAGCCACCCGAGCGTAAGTCACACCTGTGCCTGTGCC AGCGACAGGGCCGAGGGCACCGGGCTGGCCAACCAGGTGTTCTGCAGCGAGAAGCACAGCATTTACTGTGAT

## 2947/6881 FIGURE 2720B

GCTGGGAAAGCTTTGCATAGGGCCAGGGCCACTTGTCAGGATTCACAGGTAGGAGATGTTTAGGTCTCTTTATTT AGTGCAATCTGGGGGATGGCAACAGAGAAAGAGGAAAGGTAGCTGTAGGGTTCTCCCATTTCCAGAGGCTCCATC CACACCTGCCTTCCCACATTCTGAGCAGAACTTTTCTCAGTACTTTTTTCCCGATCACCCTGTGGGACCAGCTGG ACCTGAGGCTGCAGTCTTCTCCTGCAGGCTGCTTGCCTTGTCTCTCATGCGGAAGAGGCATTCGAGTTACCTG GTGAGAGACCGTGTTGCCCCCTCCCACAGCTCTCTGCCCTGCGCGTTCTTCCCTTTGGTGCCGAGTATGTTTCGG TCCCCTCCAGACTCCAGGACACGCCCATGTATGTCCCCTGCGTGTTCATCCTGGGCCCAGATCCCCCTGCCCCAG CAAGACTCGCAGTGGGATGGCTGCTGGCATGCCCACCCTGCATGCGCTTTGCCCTCTCCTTGCAAGCCTGGCACA TAGCTTCTCCCATACTCCTAAGGGACTTTGCAGACACCCAAGCCACTGGGACCCCTGCTAACACATGCAGGTCT TCTCTTCTGCCAACTAACGTGCTCGCGCCCTCCCAGCACGTGGAGAGCTTCAATTGTCAGATAAACAGGAAGCGA CAGATGACCGCTTTCTAACGCTCTTTTTCTCCCGTTTTCAGCTGTAGAGTAGCTGCCAGGAGGACTTGGCCACC CCACTTAGAAACTTTTTGGATATGCCACTGCAATTCTTTTCAAAATAGCATTCCCCAGGTTTTTAATGGGAGGAA AAAAAGCTTTAATGTTGAGCATGCTGCGAGCTGCTGCGTGGAAAGGCCTCTGTATGGGCCGAAGACCCTTCTTCC  $\tt CTGGCTGCCAGGCCCAGGAGCCCACTGGAAACGCCCACCACGGGGGCTCCTTGTTACACATGTTCTTTTTT$ ATCCGATCAACCTGTGCACTTTTGATATTTTGATATTATATTTTGCTTCCTTAATTCCTCGCGTAGAGACGGTCTC AGGTGCCGTGGTCTATGCTCGTGGTCCTGTAGCTGTCCGCCTCAGCTCCCACCGTGTTTGTCTGGTGTCAGCACG AGGCAGAGCTGTGTGCTCCATAGCGTGTAGCTTTAGACTCGGAGATGAGTGCTTTGACCCAGCGAGGAGCTCAGC TAAGTGTATCCACGCTGTGGTTCAGCAGCCTTTAGATCATACGGCATTGTGGTTCATGTTTGAAATTACAGATTT TAAATGCCATGTTCATTAAGAAATCCAGGGTATTCAGATTCTGGGGTTTTTCATATTGTATTATTATTATTCTTA AGATAAATTATTGAATGAGTAGTATTACCTACAAATTCCAGAATTTTCTGGGTTTTAGGACGTTGTGAAGCATGA CTGATTAACAGAATTTTATACAACTGTACCAATAAAATTCCAAATTGGAATTGTTTTGTTACTCTGGTTGTTGTG CCAAATTGTGGTACACTTAGAAAATTCTACAGTCGTCGATTTTTAGGGTGTTCTCTTTCAACACCTTTTTGTTAG TAATCATTGCCAGTAGTGCCTTCATCAGTTAAGGGAGGTGTCCCAGCACAGATCATTCTCAAAAGCGAGCAGGGA AGAGCTAGTGGGCATGCTGAAGGCCAGCGTGGACAGCAGGTGAGGCAGGTGCTCCTCACACCCAGACCTGGGCAT CTTCATTGAGGGAAAGAAAACAGTCATTGTGCAAAATTCTGTTAGTCAGTGATTCTTTACTTGCAAATTCAGGGG CTTAGAAAATGAAAGCAAAACACAAAACCTTGAGTGTGCTTTGGGAACCAAATGGACCTTCTGGGACAAGCTGAGC AAGCTGTATGAACGCCACGTTTGTGAAGAGCTGAGGGTATCAGGAGGGCCGACGCTGTGTTGGCATGCGCAGTAG AAAAATTATAATAATATAAATGACAAAAATAAAAGAATTCTGTTTCCTGGAATAAGCATTTCTTATTCCTAGTTG TAGGGACTCCTATTTTTACCTTCCGTTACAGTGTTGATTCATAAGAAATATTGTTACATTTGAGATAACTTCATC TGTATGGGGTATTTATTTGCAATGATGTCTGAGTACTGTATTTTTTCTGTGCATTACCTTAGTGTCAGAATGTTG CAGGACACAGACATATGATGTGAATGCCTACAAAGCCAGTGCGCATAGGAACAGTGGGCCTGGGTAAAGAGTCAC ATTGGTAGGACCAATAAAGAATAATAAAAAGAC

MSAPSEEEYARLVMEAQPEWLRAEVKRLSHELAETTREKIQAAEYGLAVLEEKHQLKLQFEELEVDYEAIRSEM EQLKEAFGQAHTNHKKVAADGESREESLIQESASKEQYYVRKVLELQTELKQLRNVLTNTQSENERLASVAQELK EINQNVEIQRGRLRDDIKEYKFREARLLQDYSELEEENISLQKQVSVLRQNQVEFEGLKHEIKRLEEETEYLNSQ LEDAIRLKEISERQLEEALETLKTEREQKNSLRKELSHYMSINDSFYTSHLHVSLDGLKFSDDAAEPNNDAEALV NGFEHGGLAKLPLDNKTSTPKKEGLAPPSPSLVSDLLSELNISEIQKLKQQLMQMEREKAGLLATLQDTQKQLEH TRGSLSEQQEKVTRLTENLSALRRLQASKERQTALDNEKDRDSHEDGDYYEVDINGPEILACKYHVAVAEAGELR EQLKALRSTHEAREAQHAEEKGRYEAEGQALTEKVSLLEKASRQDRELLARLEKELKKVSDVAGETQGSLSVAQD ELVTFSEELANLYHHVCMCNNETPNRVMLDYYREGQGGAGRTSPGGRTSPEARGRRSPILLPKGLLAPEAGRADG GTGDSSPSPGSSLPSPLSDPRREPMNIYNLIAIIRDQIKHLQAAVDRTTELSRQRIASQELGPAVDKDKEALMEE ILKLKSLLSTKREQITTLRTVLKANKQTAEVALANLKSKYENEKAMVTETMMKLRNELKALKEDAATFSSLRAMF ATRCDEYITQLDEMQRQLAAAEDEKKTLNSLLRMAIQQKLALTQRLELLELDHEQTRRGRAKAAPKTKPATPSVS HTCACASDRAEGTGLANQVFCSEKHSIYCD

#### 2949/6881 FIGURE 2722

CCGGCTCCCCGGACGCCTCGCCGGCCCGCTGGGGCTGGAGGCACGGGCCCATCAACGTGAACCATTACGCCAGCA AGAAGAGCGCAGCCGAGAGCATGCTGGACATCGCGCTGCTGATGGCCAACGCGTCCCAGCTGAAGGCCGTCGTGG AACAGGGCCCCAGCTTCGCCTTCTATGTGCCCCTGGTGGTCCTCATCTCCATCTCCCTTGTGCTGCAGATCGGCG  ${\tt TGGGGGTGCTGCTCATCTTCCTTGTCAAGTACGACCTTAACAACCCGGCCAAGCACGCCAAGCTGGACTTCCTCAAGTACGACCTGGACTTCCTCAAGTACGACCTGGACTTCCTCAAGTACGACCTGGACTTCCTCAAGTACGACCTGGACTTCCTCAAGTACGACCTGGACTTCCTCAAGTACGACCTGGACTTCCTCAAGTACGACCTGGACTTCCTCAAGTACGACCTGGACTTCCTCAAGTACGACCTGGACTTCCTCAAGTACGACCTGGACTTCCTCAAGTACGACCTGGACTTCCTCAAGTACGACCTGGACTTCCTCAAGTACGACTGGACTTCCTCAAGTACGACCTGGACTTCCTCAAGTACGACCTGGACTTCCTCAAGTACGACTTCCTCAAGTACGACTGGACTTCCTCAAGTACGACTTCAAGTACGACTTCAAGTACGACTTCAAGTACGACTTCAAGTACGACTTCAAGTACAAGTACGACTTCAAGTACAAGTACGACTTCAAGTACAAGTACGACTTCAAGTACAAAGTACAAAGTACAAGTACAAGTACAAGTACAAGTACAAGTACAAGTACAAGTACAAGTACAAGTACAAGTAAAGTACAAGTA$ ACAACCTGGCCACGGGCCTGGTGTTCATCATCGTGGTAGTCAACATCTTCATCACGGCCTTCGGGGTCCAGAAGC GACCCCAGGAGTCGCCATACCTGTGAGGTGTCCACCTCCCTGCACATGGCACTACCCAGACTGCCAGAGCCCAGG  $\tt CTGGCCTCATCTGCACCATGTCCCCGGACCAGCCCTTGCTCTGACTGCGGCCAAGCACCACGCAGGAGGCCACTC$  $\tt TTGTCTCTCAGCAGCTGTTCCCAGGAGGCAGCTCCCTCCTGGCACATGGGGGCTGGCCACAATAGCCCAGAGGGT$ CAGAACTGGACAGCTGCAGAGACCTGTGCCCAGAGAAGGGTCTCGACCCACTCAAGGACACACAGCAGGTCCGTG GATGGGCTGGATGAGTGACCAGGGCCAGCCTCTGTCTCAGGACATTCCAGAAGGACAAGGAGATGTCTCTCCCTC  ${\tt TCCCAAAGCACCAGCGTCCCTGCCTCCCGTGGGCCCTGTCCGGGTTGCCCTGGTGACCCCAGCCTCTGTCCACTT}$  $\verb|CCTAACCCAGGGACCCTGCACAGCCAGAACTGCCTTTGGCCCTACGGATGGCCACTGGCTCTGGTCTTAAGTGCC| \\$ TGGGCTTGGTGGCCATCAAGAGGGAGCCAGTCAGGCCTGTGAGGGCCGTAGACCTTGTATATACCCTGCACCAGC CCCACGCTCTTTGTCAGGC

#### 2950/6881 FIGURE 2723

GCTGCAGCCCTCAGAAGTAAGCAAGGTTTCCTGCCGGGAGAAAAGGATTTGAAGCATTCCAGCCAAA<u>ATG</u>ACGGA CAGAAGCCCCTTCGAAACCGACATGCTCACCCTGACCCGCTACGTTATGGAAAAGGGGCGTCAGGCCAAAGGGAC TGGGGAGCTCACCCAGCTGCTGAACTCAATGCTGACGGCCATCAAAGCCATCTCCTCGGCTGTGCGCAAGGCCGG TCTGGCCCACCTGTATGGAATCGCAGGAAGCGTTAACGTGACGGGAGATGAGGTGAAGAAACTGGATGTGCTATC CAATTCCCTGGTGATCAACATGCTCCAATCCTCCTATAGTACCTGCGTCCTGGTCTCAGAAGAGAATAAGGACGC CTGCCTGGCCTCCATCGGAACCATCTTTGCCATCTATAGAAAGACCTCAGAGGATGAGCCTTCTGAAAAGGATGC CCTGCAGTGTGGCCGCAATATTGTGGCCGCAGGTTATGCGCTGTACGGTAGTGCAACCCTGGTGGCTCTCTCCAC AGGGCAAGGCGTGGACCTCTTCATGCTTGACCCGGCTCTTGGTGAATTTGTCCTGGTGGAAAAAAGATGTCAAGAT TAAGAAGAAAGGAAAGATTTACAGCCTGAATGAGGGCTATGCCAAGTATTTTGATGCGGCCACCACTGAATATGT GCAGAAAAGAATTCCCTGAGGATGGCAGTGCTCCCTATGGGGCCAGGTATGTGGGCTCCATGGTGGCTGACGT GCACCGCACCCTGGTCTATGGAGGAATCTTCCTGTACCCAGCCAACCAGAAGAGCCCTAAGGGCAAGCTCCGGCT ACTGGACGTGAAGCCCGAGGCAATTCACCAGCGAGTCCCCCTCATTCTGGGGTCACCAGAGGATGTGCAGGAATA ACCTTGTCTAAGGACCCTAAATGAACGATAAACAGAGATGGTAGCTATGAGTATGCAAAAGGTAAATCCACTTAA TCACATACAGAAGAGCAACAACTGCTTACGACAGGTTTGGAAGCCACAGGCGATTCTATGGTCAATGTGAA 

# 2951/6881 FIGURE 2724

MTDRSPFETDMLTLTRYVMEKGRQAKGTGELTQLLNSMLTAIKAISSAVRKAGLAHLYGIAGSVNVTGDEVKKLD VLSNSLVINMLQSSYSTCVLVSEENKDAIITAKEKRGKYVVCFDPLDGSSNIDCLASIGTIFAIYRKTSEDEPSE KDALQCGRNIVAAGYALYGSATLVALSTGQGVDLFMLDPALGEFVLVEKDVKIKKKGKIYSLNEGYAKYFDAATT EYVQKKKFPEDGSAPYGARYVGSMVADVHRTLVYGGIFLYPANQKSPKGKLRLLYECNPVAYIIEQAGGLATTGT QPVLDVKPEAIHQRVPLILGSPEDVQEYLTCVQKNQAGS

## 2952/6881 FIGURE 2725A

AGTGGGTGCTGGGCTGGTATGGGAGCCCCGGGTCCCTGGAGCACCTTGCCTGGCTGTGGCAGTCACCGGGAAGCA GAGGCTGTCCACCTGGAGGCACAGCGGCACTCCTTGGCACTATTTTGGCCACTTCAGGTTTTATAATCTGTTGAA ACAAAAATTGTGGGGGAACATCTTGAGTAGGTTTAGAGATGGAATGGGAAGCCTGGCAGAAGCGCTGGTCCAGTC TTCAGGGTCACGGCTGATACAGGAGTTTAAGCGGCCGTGTGACTCCAAAGCCTAGCTTCTGCAAGCAGATGTTTT ACACGCGGCACACGCACACACACACACACAGAGCACCTGGAGCACCCACAGCACACACCACGCAGAGTACA ACGCACCACAGAGCACATGTGGCACACAGTGCACGCACCACAGCACCCGCGGCGCACACAGCACACGTG GCATATGGCCTCCATGACCCTGTGTCTTGAGGGCAGGTCCTACTTTTTGCTTTGTTGTTGGAGCCGAATTTCT CCCCTGGCTTCTATTGGAGTCCTAGATTATTTAAATCACTTCCTCTGTTAATTGTGCCTGGAATTAACCTGTTAG ATTTACTTCCTAGCAGTTAGTTGCTCAGTATGGGTTTCTACACTATTAAAGCAACCTAGCGGTAGTACACAAGGT TTTGTTAGGATAGCTGTGAGATTTTTTTTCTCTAACAATCATCATTATTTCTGTGTCTGCTCCGTTTTTCTTCAG TGTTTTATATGATATTAATAGGGGATGTCTAATTTTGTATCTTTAAAAAAACTTTATCAAATCTGAAGCATTTTT CGTGTTATAGCTTCTCTATAATTTTTCATGGATATTGAATATTTGGTGTTGATATTCTTCACTCAGTTTTGAACA AAGAACTCTAATAATGAAAAGAATAAAAAGTTTTTCAGAAGCATGATCATATTCTTCCAGAAGAGTCAGGAACC ATGTGTGCCAGGAAAGGGAAACGGGTCTCGTAGCGAAACGCCTGCTGCAGACTTGACGCGGCTCCCC TCCAGGACGGGCTGGCGCACACAGACTGTGCACTTACCTCACTGCCGGCCTCATAATAGTAATCAGTGTAAATG GTGTTTCTCTTTCGTTTTTTTTTTCGTGGCGTACGTGTTAAAGTGTGTGAAACTACAAGGCCAGCTAGTCCTTT CATCATTCCCTTTGGTGCAGGTTTTGGAGCAGCACCACAGGGCACACCCCTCGCCACTCTTTATGGGGAATTTTT GCCCAGGCAGGCAAAGGAGTCATCTTGGTCACAAGTCTCCCTTTTCCCCCTCCCCAGCATCTTCGATCCTGTCCC CACCCCTCCAGATGCATCCAGGGGTTGCAAGCCTGCCCCCAACCAGTCCCCGTGAGGAACAGTGGCCGGGATTG TCCCAGGGCCCCTTCCAGCAGGGGGACCTCCTGACTTGAGAGTCCCCAAAGCCTTCCCAGGGCAGCTAGAATCTG CCTGGAGAGAGGGATCTTGTCCCCAAGGGTTAGAGGCAGTAAACTAATAGCAAGGACAGCTGCCTTTAGCAATT GTGTGTGTCGCATGGCCGGTCCCTGCATTTTTCTTCAGTTCCAAAGCTGCACTGGCATTTTTATGGTCATCTCTG GCTAGCATAACAGGCGTGAAGGCGGCAGTGTCGCCGGCGTCCTTCCGCGGAAGCCCAGTGTGTGCAGACAGCACG GGGTGGCGCTGCTCTCAGGTGCTCTGGCTTGGGTTCCTGGCATGCTGATTTGTGACTTAAGATTAAAATCAC ATTGCCAGGGATTACCACGCAACCACGACCTTGGCTGCTCCTCCAGAAACCGTGGTCGCGCTCACTGCAGATTGG AGAACAGGTGCATCTCGTAGCTCTTCTTTGGAAACAAAAGAAGCCACCAGCTGAGGAAGATGCTCACCGGTCACC GTCCCTTTATTTATGCCCAGCGATGACCTCTCTAACAAGGTGCAGAGCTTAGCTGATTGGTGAACAGTGATTGGT TTCCGCTTTGTTCACAGTGGCTAAGTTCTGCACCTGAAGAGAAGGTGAGATGGGGACAGTTAAGTTGGAGCCGCT GGGGCAGAGGCCGTTGCTGACGGGCCGGCCGCTGCTGCACAGTCAGCTTGGGTGCGGAGCGCGATCCTGGAGGAT GAGAGACCACTTGACCCCAAGGATGCACTGTCTCCTGCTGGGAATGCTAGCCATGTACTGAGTCCTTAAGTCTGT CCACAGAAACATGCACTAATCGGACATCTGTCTGAAAGGTCAAATGTATTGAAAGTTGCAAAAATTCTTCTTACA CTCCTGCGCCAGCAGACGGTGCCCACGGAGCTCCCAGCTGAGGCGCTGCTTCTCCGGGCTGTCGATTGGACCCGC CCTCCGGTGCCTACTGAGCTGATATCAGTTCTCATTTTACACACTGGCTCAGTTCAGCAGGAACAGGAGTCGAGC CCTTGAGCAAAAAGCCTTCGTGTCTGTAAGTGCCCGAGGCTCAGGAGAGCTGGGGGCTCCCACTCGCGGCAGACAG GCCCGCGTCCACCCTGCGTCCACCCCGGCCGGCGCAGCACGGTGCCAGTCATCTGCATGTGCTCCTGCGGCGT GGGGGTTTGTAGACTTGGAAAACCCTGTTGGCAGAAAGTTAAGAGCTCCCAGGCCTGAAGGCAGGACACAGTGCC 

# 2953/6881 FIGURE 2725B

GGCGGCCTCAGCAAAAAAGAAGAAGAAGAAGAAGGGGAAGACTATCTCCCTAACAGACTTTCTGGCTGAGGATGGGGG TACTGGTGGAGGAAGGACCTATGTTTCCAAACCAGTCAGCTGATGAAACGGATGACCTGGAAGGAGATGT  ${\tt TTCGACAACTTGGCACAGTAACGATGACGATGTGTATAGGGCGTCTCCAATTGACCGTTCCATCCTTCCCACTGC}$ TCCACGGGCTGCTCGGGAACCCAATATCGACCGGAGCCATCTTCCCAAATCGCCACCCTACACTGCTTTTCTAGG AAACCTACCCTATGATGTTACAGAAGAGTCAATTAAGGAATTCTTTCGAGGATTAAATATCAGTGCAGTGCGTTT ACCATGTGAACCCAGCAATCCAGTGAGGTTGAAAGGTTTTGGTTATGCTGAATTTGAGGACCTGGATTCCCTGCT TAGTGCCCTGAGTCTCAAGGAAGAGTCTCTAGGTAACAGGAGAATTCGAGTGGACGTTGCTGATCAAGCACAGGA TAAAGACAGGGATGATTGTTCTTTTGGCCGTGATAGAAATCGGGATTCTGACAAAACAGGTACAGACTGGAGGGC TCGTCCTGCTACAGACAGCTTTGATGACTACCCACCTAGAAGAGGTGATGATAGCTTTGGAGACAAGTATCGAGA TCGTTATGATTCAGACCGGTATCGGGATGGGTATCGGGATGGGTATCGGGATGGCCAACGCCGGGATATGGATCC ATATGGTGGCCGGGATCGCTATGATGACCGAGGCAGCAGAGACTATGATAGAGGCTATGATTCCCGGATAGGCAG TGGCAGAAGAGCATTTGGCAGTGGTATCGCAGGGATGATGTCTCAGAGGAGGCGGGGACCACTATGAAGACCGA TATGACAGACGGGATGATCGGTCTTGGAGCTCCAGAGATGATTACTCTCTGGATGATTATAGGCGTGATGGTAGA GGTCCCCCCAAAGACCCAAACTGAATCTAAACCCTCGGAGTACTCCTAAGGAAGATGATTCCTCTGCTAGTACC TCCCAGTCCACTCGAGCTGCTTCTATCTTTGGAGGGGCCAAAGCCCGTTGACACAGCTGCTAGAGAAAGAGAAGTA GAAGAACGGCTACAGAAGGAACAAGAAGATTGCAGCATCAGCTGGATGAGCCAAAACTAGAACGACGGCCTCCG GAGAGACCCCAAGCTGGCGAAGTGAAGAAACTCAGGAACGGGAACGGTCGAGGACAGGAAGTGAGTCATCACAG ACTGGGACCTCCACCACATCTGGCAGAAGTAAGTCAGCCCAGGATGCACGAAGGAGAGAAGAAGTCTCTA GAAAATGAAACACTCAATAAGGAGGAAGATTGCCACTCTCCAACTTCTAAACCTCCCAAACCTGATCAGCCCCTA AAGGTAATGCCAGCCCTCCACCAAAGGAGAATGCTTGGGTGAAGCGAAGTTCTAACCCTCCTGCTCGATCTCAG CCAGCAAGGAAAGATGAAAACAAAGTAGATGGGATGAATGTCCCAAAAGGCCAAACTGGGAACTCTAGCCGTGGT  ${\tt CCAGGAGATGGAGGGAACAAAGACCACTGGAAGGAGTCAGATAGGAAAGATGGCAAAAAAGGATCAAGACTCCAGA}$ TCTGTTGATGGTGAAGATGAAAATGAGGGAGAAGATTATGCCGAATAG

#### 2955/6881 FIGURE 2727

 $\tt CCTTTGGGAAGCTGCCCGCCGAGTCTCCGAGATTTGTCCCTGGTGGTCCCGCGGACCCCTCGTCCCTCCGCAGTC$  $\tt CTGCCAGGGATCCACAGGTGCCGCCTCCGGAGGAAGAATCGGGGGGACTGCGCCCGGTCCCTGGAGGCGGTCCCCA$ AGAAACTCTGTGGGTATTTAAGTAAGTTCGGCGGCAAAGGGCCCATCCGGGGCTGGAAATCCCGCTGGTTCTTCT ACGACGAAAGGAAATGTCAGCTGTATTACTCGCGGACCGCTCAGGATGCCAATCCCTTGGACAGCATCGACCTCT CCAGTGCAGTGTTTGACTGTAAGGCGGACGCTGAGGAGGGGGATCTTCGAAATCAAGACTCCCAGCCGGGTTATTA CCCTGAAGGCCGCCACCAAGCAAGCGATGCTGTACTGGCTGCAGCAGCTGCAGATGAAGCGCTGGGAATTCCACA GGCAAGAAGAGGCAGAGCTGGAGGAGTTCCTGTGCCCTGTGAAAACACCCCCTGGGCTAGTGGGCGTGGCAGCTG CCTTGCAGCCCTTCCCTGCCCTTCAGAATATTTCCCTCAAGCACCTGGGGACTGAAATACAGAACACAATGCACA ACATCCGTGGCAACAAGCAGGCCCAGGGAACAGGCCATGAACCTCCAGGGGAAGATTCTCCACAGAGTGGGGAGC CTCAGAGGGAGGAGCAGCCCTTGGCCTCTGACGCCAGCACCCCAGGGAGAGAGCCAGAGGATTCTCCAAAGCCTG CACCCAAGCCTTCTCTGACCATCAGTTTCGCTCAGAAAGCCCAAGCGCCAGAACAACACCTTCCCATTCTTTTCTG AAGGAATCACACGGAACCGAACTGCCCAGGAGAAAGTGGCAGCCTTGGAGCAACAGGTTCTGATGCTCACCAAGG AGTTAAAGTCTCAGAAGGAGCTAGTGAAGATCCTGCACAAGGCACTGGAGGCCGCCCAGCAGGAGAAGCGGGCGT CCAGCGCATACCTGGCGGCGGCTGAGGACAAGGACCGGCTGGAGCTGGTGCGGCACAAAGTGCGGCAGATCGCGG AGCTGGGCCGGCGGGGGGGGCCCTGGAGCAGGAGCGGGAGAGCCTGGCGCACACAGCGAGCCTGCGGGAGCAGC AGGTGCAGGAGCTACAGCAGCAGCTGCTGCTTATGGACAAGAACCACGCCAAGCAGGTCATCTGCAAGC TCTCTGAGAAGGTCACCCAGGACTTCACGCACCCCCTGACCAGTCTCCTTTGCGCCCCGACGCTGCCAACAGGG ACTTCCTGAGCCAGCAGGGAAGATAGAGCACCTGAAGGATGACATGGAAGCTTACCGGACCCAGAACTGCTTCC TCAACTCCGAGATCCACCAGGTCACAAAGATCTGGAGAAAGGTGGCTGAGAAGGAGAAGGCCCTTCTGACGAAGG TGCGCCTACCTCCAAGCCAGAAACTGCCAGGTGGAAAGCAAGTACCTGGCCGGTCTGAGAAGGCTGCAGGAGGCC CTGGGGGACGAAGCCAGCGAGTGCTCAGAGCTGCTGAGGCAGCTTGTCCAGGAGGCACTGCAGTGGGAAGCTGGG TATGAGGTGGAAGACCTGAAGCTGCTGGCCAAGATCCAGGCATTGGAGTCACGATCCCACCACCTGCTGGGCCTC GAGGCTGTGGATCGGCCGCTGAGGGAGCGCTGGGCTGCCCTGGGCGATCTTGTGCCCTCAGCCGAGCTCAAGCAG CTACTGCGGGCAGGAGTACCCCGTGAACACCGGCCTCGTGTCTGGAGGTGGCTGGTCCACCTCCGTGTCCAGCAC CTGCACACTCCAGGCTGCTACCAGGAACTGCTGAGCCGGGGCCAGGCCCGCGAGCACCCTGCTGCCCGCCAGATT GAGCTGGACCTGAACCGGACCTTCCCCAACAACAACACTTCACCTGCCCCACCTCCAGCTTCCCCGACAAGCTC CGCCGGGTGCTGCTGGCCTGCCTGGCAGAACCCCACCATCGGCTACTGCCAGGGCCTGAACAGGCTGGCGGCC ATTGCCCTGCTGGTCCTAGAGGAGGAGGAGAGCGCCTTCTGGTGCCTGGTGGCCATTGTGGAGACCATCATGCCC GCTGATTACTACTGCAACACGCTGACGGCATCCCAGGTGGACCAGCGGGTGCTCCAGGACCTGCTCTCGGAGAAG CTGCCCAGGCTGATGGCCCATCTGGGGCAGCACCACGTGGATCTCTCCCTCGTCACCTTCAACTGGTTCCTCGTG GTCTTTGCGGACAGTCTCATTAGCAACATCCTCCTTCGGGTCTGGGATGCCTTCCTGTACGAGGGGACGAAGTAC AACGAGAAGGAGATCTTGAGGCTACAGAATGGCCTGGAAATCTACCAGTACCTGCGCTTCTTCACCAAGACCATC TCCAACAGCCGGAAGCTGATGAACATCGCCTTCAATGACATGAACCCCTTCCGCATGAAACAGCTGCGGCAGCTG CGCATGGTCCACCGGGAGCGGCTGGAGCTGAGCTGCGGGAGCTGGAGCAGCTTAAGGCAGAGTACCTGGAGAGG CGGGCATCCCGGCGCAGAGCTGTGTCCGAGGGCTGTGCCAGCGAGGACGAGGTGGAGGGGGAAGCCTGACTTGGC CACCTCCCCCCCCACAGCCTTCCTCACCCTTGGCTGGCAGACCCACTGGAGGTCAGGCACGGACCAGTGGCCCA GCCCTGGGTGTCCCATCACCATGTGACCTTGGACATGTCCCTTCCCCTCTGGCCCTCAGTTTCCCCACTGGGA CTAGGTTATATCAATATAAAACAATGTAAATGGTGG

#### 2956/6881 FIGURE 2728

CACAGGGGCACTGACATCTTTGCTGGACTCTTTTAATCCTCATAAACCCAGGCTGCTGGCACTTGAAATTTGAGA GAGGCTGGAAGCAGAGGAGGAGGTACCTCACCATCCTCTCCCGCCAGCTGTTGCAGACTCTGCCTGGGGAACTGAT TAAGGGTGAGCAGAGGCATTTATCTCCATGTTAACAAGCAGATGTCATGGCACCCCCAGTACCGGAGCTCCAAGT TCCGTCATGTCTTTGGCAAACCAGCCAGCAAGGAGAACTGCTACGACTCCGTGCCTATCACCGCGCAGCGTTCACG ACAACCACTTCTGTGCCGTGAACCCCCACTTCATTGCAGTTGTGACTGAGTGTGCTGGTGGAGGGGCCTTCCTCG TCATCCCCTGCACCAGACAGGGAAGTTGGACCCCCACTACCCAAAAGTCTGCGGGCACAGAGGCAACGTTTTGG ATGTCAAGTGGAACCCTTTTGATGATTTTGAGATCGCCTCCTGTTCTGAAGATGCCACAATTAAGATCTGGAGCA TGGTGGAGTGGCACCCCACGGCCGACATCCTCTTCAGTGCTGGCTATGACTACAAGGTGATGATCTGGAACC TGGATACAAAGGAGTCTGTCATCACAAGCCCCATGAGTACGATTAGCTGTCACCAAGATGTGATCCTCTCCATGT CCTTCAACACCAACGGCAGCCTGTTGGCCACCACCTGCAAAGACCGCAAGATTCGGGTTATTGACCCCCGAGCAG GGACCGTCCTCCAGGAGGCCAGCTACAAAGGGCACCGGGCCAGCAAAGTGCTGTTTCTGGGGAACCTGAAGAAGC TGATGTCCACAGGCACATCCCGATGGAACAACCGGCAGGTGGCCTTGTGGGACCAGGATAACCTCTCTGTGCCTC TGATGGAGGAGGACCTGGACGCTCCTCGGGCGTGCTGTTTCCCTTCTATGACGCGGACACCAGCATGCTCTACG TGGTGGGGAAGGGAGATGGCAACATCCGCTACTACGAGGTGAGCGCCGACAAGCCTCACCTGAGCTACCTGACTG AGTACCGCTCCTATAACCCACAGAAGGGGATCGGTGTCATGCCAAAGAGAGGACTCGACGTGTCCTCCTGCGAGA TCTTCCGCTTCTACAAGCTGATCACAAACCAAAAGCCTCATCGAGCCCATCTCCATGATTGTGCCCCGGCAGTCAG ATGGCTGGAGGTCTTCCTCCTGTTGGAGGAGAAGATGCCAAGGTGGGCAGCAGAACACGCTGGAGGAGAAGA AAACCTGGCTGACAAATGGCTTTGACGTTTTCGAATGCCCCCCACCAAAGACAGAGAATGAGTTGCTGCAGATGT TCTACCGGCAACAGGAGGAGATCCGAAGGCTCCGGGAGCTGTTGACCCAGCGAGAGGTCCAGGCCAAACAGTTGG AACTGGAGATCAAAAACTTGCGGATGGGCTCAGAGCAGCTCTGAGCAGAGACCTCTGCCCTCCACCCTCAGGG TTTACCAGAAAACAAAACTCTCCATCGCTGAAAGAGATTCCAGTGGGACATGGTGCCGTTTTTCTGTTTGCCTTC TTGCAACAACAGTTTCTGAATTGACTTTTTTCAGATGATGCCTTCTGTTGAATTCTGTTATTAAGGGCCCATG GATTTTCAAACTGTGGTCCAGAGAATAGGGGAAGACTGGGCCAGACGCAGTGGCTCATGCCTGTAATCCCAGCAC TCTGGGAGGCTGAGGTGGGCGGATTGCTTGAGGTCGGGAGTTTGAAACCAGTCTCACCAGGCGCAGTGGCTCACG ATGGTGAAACCCCATCTCTACTAAAAA

MSWHPQYRSSKFRHVFGKPASKENCYDSVPITRSVHDNHFCAVNPHFIAVVTECAGGGAFLVIPLHQTGKLDPHY PKVCGHRGNVLDVKWNPFDDFEIASCSEDATIKIWSIPKQLLTRNLTAYRKELVGHARRVGLVEWHPTAANILFS AGYDYKVMIWNLDTKESVITSPMSTISCHQDVILSMSFNTNGSLLATTCKDRKIRVIDPRAGTVLQEASYKGHRA SKVLFLGNLKKLMSTGTSRWNNRQVALWDQDNLSVPLMEEDLDGSSGVLFPFYDADTSMLYVVGKGDGNIRYYEV SADKPHLSYLTEYRSYNPQKGIGVMPKRGLDVSSCEIFRFYKLITTKSLIEPISMIVPRQSESYQEDIYPPTAGA QPSLTAQEWLSGMNRDPILVSLRPGSELLRPHPLPAERPIFNSMAPASPRLLNQTEKLAAEDGWRSSSLLEEKMP RWAAEHRLEEKKTWLTNGFDVFECPPPKTENELLQMFYRQQEEIRRLRELLTQREVQAKQLELEIKNLRMGSEQL

#### 2958/6881 FIGURE 2730

GCGCTGCCCGGAGCATGGCGACCGCTGGCTGAGCTCTTCTGTCGCCGCTGCCGCCGCTGCGTGTGCGCGCTTTG  $\tt CCCGGTGCTGGGCGCCCCTGTGGGCCTGGGGCGTGGAGGCAGCGGTGCACGTGCAGAAACTCAG$ CCAAGAATGTTTAAAGCAGCTGGCAATCAAGAAGCAGCAGCACATTGACAACATAACCCAGATAGAAGATGCCAC CGAGAAGCTCAAGGCTAATGCAGAGTCAAGTAAAACCTGGCTGAAGGGGAAATTCACTGAACTCAGATTACTACT TGACGAAGAGGAAGCGCTGGCCAAGAAATTCATTGATAAAAACACGCAGCTTACCCTCCAGGTGTACAGGGAACA AGCTGACTCTTGCAGAGAGCAACTTGACATCATGAATGATCTCTCCAACAGGGTCTGGAGTATCAGCCAGGAGCC CGATCCTGTCCAGAGGCTTCAGGCATACACGGCCACCGAGCAGGAGATGCAGCAGCAGATGAGCCTCGGGGAGCT GTGCCATCCCGTGCCCTCTCTTTTGAGCCCGTCAAGAGCTTCTTTAAGGGCCTCGTGGAAGCCGTGGAGAGTAC AGGTACCTTGTTGAAAACCAGCCCCTCACCAGAGCGATCGCTATTGCTGAAATACGCGCGCACGCCCACGCTGGA GGGGCCCGTGCCGTGCTGCGGTTCGACGCGCTCTGGCAAGTGCTGGCTCGTGACTGCTTCGCCACCGGCCGCCAC CGGGGCCTCGGCCGCCGCCTGGGCTGCAACCGCCAGTCCTGGTGCCTCAAGCGCTACGACCTTGAGTACTG GGCCTTCCACGACGGCCAGCCCAGCCCCCTGCGGCCCCGCGACCGCCTCGACCGGCTCTTCCTGGACTA CGAGGCCGCCTCCTCCCCTTCTACGACGTGACGGCGGCATGAGCCACCTGCATACCTTCCGCGCCACGTTCCA ATGACAGCAATTTTCTAATATTTGGTTTAATAAAATGTGAATAATGTCCCTTTT

# 2959/6881 FIGURE 2731

MAGAATGSRTPGRSELVEGCGWRCPEHGDRVAELFCRRCRCVCALCPVLGAHRGHPVGLALEAAVHVQKLSQEC LKQLAIKKQQHIDNITQIEDATEKLKANAESSKTWLKGKFTELRLLLDEEEALAKKFIDKNTQLTLQVYREQADS CREQLDIMNDLSNRVWSISQEPDPVQRLQAYTATEQEMQQQMSLGELCHPVPLSFEPVKSFFKGLVEAVESTLQT PLDIRLKESINCQLSDPSSTKPGTLLKTSPSPERSLLLKYARTPTLDPDTMHARLRLSADRLTVRCGLLGSLGPV PVLRFDALWQVLARDCFATGRHYWEVDVQEAGAGWWVGAAYASLRRRGASAAARLGCNRQSWCLKRYDLEYWAFH DGQRSRLRPRDDLDRLGVFLDYEAGVLAFYDVTGGMSHLHTFRATFQEPLYPALRLWEGAISIPRLP

GTCGACGCGGCCGCCCCCCCGTGAGTAACTTGGCTCCGGGGGCTCCGCTCGCCTGCCCGCACGCCCGC AGGATCCACCTGGAGCTGAGGAACCGGACCCCGGCAGCTGTTCGAGAACTTGTCTTGGACAATTGCAAATCAAAT GATGGAAAAATTGAGGGCTTAACAGCTGAATTTGTGAACTTAGAGTTCCTCAGTTTAATAAATGTAGGCTTGATC TCAGTTTCAAATCTCCCCAAGCTGCCTAAATTGAAAAAGCTTGAACTCAGTGAAAATAGAATCTTTGGAGGTCTG GACATGTTAGCTGAAAAACTTCCAAATCTCACACATCTAAACTTAAGTGGAAATAAACTGAAAGATATCAGCACC TTGGAACCTTTGAAAAAGTTAGAATGTCTGAAAAGCCTGGACCTCTTTAACTGTGAGGTTACCAACCTGAATGAC TACCGAGAGAGTGTCTTCAAGCTCCTGCCCCAGCTTACCTACTTGGATGGCTATGACCGAGAGGACCAGGAAGCA GACGATGAGGATGGTGAAGAAGAGGGGGTTTGATGAAGAAGATGAAGATGAAGATGTAGAAGGGGGATGAGGAC GACGATGAAGTCAGTGAGGAGGAAGAAGTTTGGACTTGATGAAGAAGATGAAGATGAGGATGAGGATGAAGAG AGGTAGCTGTGATACAAACCCCAGGACACCCACCCAAAGAGCCCAAAGAATAGTTCCTGTGACATTCCGCCT TCCTTCCATGTAGTCCCTCTTGGTAATCTACCACCAAGCTTGTGGACTTCACCCCAACAAAATTGTAAGCGTTGT TAGGTTTTTGTGTAAGATTCTTGCTGTAGCGTGGATAGCTGTGATTGGTGAGTCAACCGTCTGTGGCTACCAGTT CAAAAAAGTATTTTTAAGAATTTAAGCGAAATAAACAGTTACTCTTTGGC

MDMKRRIHLELRNRTPAAVRELVLDNCKSNDGKIEGLTAEFVNLEFLSLINVGLISVSNLPKLPKLKKLELSENR IFGGLDMLAEKLPNLTHLNLSGNKLKDISTLEPLKKLECLKSLDLFNCEVTNLNDYRESVFKLLPQLTYLDGYDR EDQEAPDSDAEVDGVDEEEEDEEGEDEEDEDDEDGEEEEFDEEDDEDEDVEGDEDDDEVSEEEEEFGLDEEDEDE DEDEEEEEGGKGEKRKRETDDEGEDD

CACAAAAGGAGAAAGACCTCTGATGCAAATGAAACTGAAGATCATTTGGAATCTTTAATATGTAAAGTAGGAGAA  ${\tt AAGAGTGCCTGCTCTTTGGAGGGCAACCTAGAAGGCTTGGCTGGTGTTTTGGAAGCTGATCTTCCTAACTACAAG}$ AGCAAGATCTTAAGGCTTCTTTGTACAGTTGCACGCCTATTACCTGAGAAGCTGACAATTTATACAACATTAGTT GGACTACTGAATGCCAGGAATTACAATTTTGGTGGAGAATTTGTAGAAGCCATGATTCGTCAACTTAAAGAATCA TTGAAAGCAAACAATTATAATGAAGCCGTGTATTTGGTCCGTTTTTTATCTGATCTTGTGAATTGTCATGTGATT GCCGCCCCATCAATGGTTGCTATGTTTGAAAATTTTGTAAGCGTAACTCAGGAAGAAGATGTACCTCAGGTGCGA GAGATGGACCGCATCTTTGCCAACACTGAAAGCTATCTTAAAAGACGCCAAAAGACTCATGTACCCATGTTACAG GTATGGACTGCTGATAAACCACATCCACAAGAAGAGTATTTAGATTGCCTGTGGGCCCAGATTCAGAAATTGAAA AAGGATCGCTGGCAGGAACGGCACATCCTAAGACCTTATCTTGCCTTTGACAGCATCCTGTGTGAAGCACTGCAG CACAATCTGCCTCCTTTTACACCACCTCCTCACACTGAAGATTCAGTGTACCCAATGCCAAGGGTCATCTTCAGA ATGTTTGATTACACAGATGATCCCGAGGGTCCTGTCATGCCAGGGAGTCATTCAGTGGAAAGATTTGTAATAGAA GAGAATCTTCACTGCATCATTAAGTCCCACTGGAAGGAAAGGACGACTTGTGCTGCACAGTTAGTGAGCTATCCA GGGAAGAACAAGATCCCCTTGAACTACCACATAGTTGAGGTGATCTTTGCAGAGCTGTTTCAACTTCCAGCACCC CCTCACATTGATGTGATGTACACAACACTCCTCATTGAACTGTGCAAACTTCAACCTGGCTCTCTACCCCAAGTT CTTGCACAGGCAACTGAAATGCTATACATGCGTTTGGACACAATGAACACTACCTGTGTAGACAGGTTTATTAAT TGGTTTTCTCATCATCTAAGTAACTTCCAGTTCCGTTGGAGCTGGGAAGATTGGTCAGATTGTCTAGTCAAGAT CCTGAAAGTCCCAAACCGAAGTTTGTAAGAGAAGTTCTAGAAAAATGTATGAGGTTGTCTTACCATCAGCGTATA TTAGATATTGTTCCTCCTACCTTCTCAGCTCTGTGTCCTGCAAACCCAACCTGCATTTACAAGTATGGAGATGAA AGTAGCAATTCTCTTCCTGGACATTCTGTTGCCCTCTGTTTAGCTGTTGCCTTTAAAAGTAAGGCAACCAATGAT GAAATCTTCAGCATTCTGAAAGATGTACCAAATCCTAACCAGGATGATGACGACGATGAAGGATTCAGTTTTAAC CCATTGAAAATAGAAGTCTTTGTACAGACTCTGCTACACTTGGCAGCCAAATCATTCAGCCACTCCTTCAGTGCT CTTGCAAAGTTTCATGAAGTCTTCAAAACCCTAGCTGAAAGTGATGAAGGAAAGTTACATGTGCTAAGAGTTATG TTTGAGGTCTGGAGGAACCATCCACAGATGATTGCTGTACTAGTGGATAAGATGATTCGTACACAAATAGTTGAT TGTGCTGCCGTAGCAAATTGGATCTTCTCTTCAGAACTATCTCGTGACTTTACCAGATTGTTTGGTAAATT TTGCACTCTACAATTCGTAAGATGAACAAACATGTCCTGAAGATCCAGAAAGAGCTGGAAGAAGCTAAAGAGAAA CTTGCTAGGCAACACAAACGGCGAAGTGATGATGACGACAGAAGCAGTGACAGGAAAGACGGGGTTCTTGAGGAA CAAATAGAACGACTTCAGGAAAAAGTGGAATCTGCTCAGAGTGAACAAAAGAATCTTTTCCTCGTTATATTTCAG CGGTTTATCATGATCTTGACCGAGCACCTAGTACGATGCGAAACTGATGGGACCAGTGTATTAACACCATGGTAT AAGAACTGTATAGAGAGGCTGCAGCAGATCTTCCTACAGCATCACCAAATAATCCAGCAGTACATGGTGACCCTG GAGAACCTTCTCTCACTGCTGAATTAGACCCTCATATCTTGGCCGTGTTCCAGCAGTTCTGTGCCCTGCAGGCC  $\underline{\textbf{TAA}} \textbf{GGGTCATTTTTTCCTCATGTCAAGGTTTTTTTTGATATCTTAAAATAATTTGTCTTATTTTTTGATGGTTTG$ ATTACTTTTAATTGCCCTGAAAAGCAAATACTTCCTAACGGCAGTAATGTGACTATGACCATGATATATTATATA GTATGTGAAACACTAGAGGTCAACCTTACATAGTATATAGAACTGATGGGTTTACCCCAGCTACCCAGTAGCATAA CTTTTCACAGCTCGGGGATGAATTAACATGGCTGAAATAAAACTAAAAGTATG

MSRRRHSDENDGGQPHKRRKTSDANETEDHLESLICKVGEKSACSLESNLEGLAGVLEADLPNYKSKILRLLCTV
ARLLPEKLTIYTTLVGLLNARNYNFGGEFVEAMIRQLKESLKANNYNEAVYLVRFLSDLVNCHVIAAPSMVAMFE
NFVSVTQEEDVPQVRRDWYVYAFLSSLPWVGKELYEKKDAEMDRIFANTESYLKRRQKTHVPMLQVWTADKPHPQ
EEYLDCLWAQIQKLKKDRWQERHILRPYLAFDSILCEALQHNLPPFTPPPHTEDSVYPMPRVIFRMFDYTDDPEG
PVMPGSHSVERFVIEENLHCIIKSHWKERKTCAAQLVSYPGKNKIPLNYHIVEVIFAELFQLPAPPHIDVMYTTL
LIELCKLQPGSLPQVLAQATEMLYMRLDTMNTTCVDRFINWFSHHLSNFQFRWSWEDWSDCLSQDPESPKPKFVR
EVLEKCMRLSYHQRILDIVPPTFSALCPANPTCIYKYGDESSNSLPGHSVALCLAVAFKSKATNDEIFSILKDVP
NPNQDDDDDEGFSFNPLKIEVFVQTLLHLAAKSFSHSFSALAKFHEVFKTLAESDEGKLHVLRVMFEVWRNHPQM
IAVLVDKMIRTQIVDCAAVANWIFSSELSRDFTRLFVWEILHSTIRKMNKHVLKIQKELEEAKEKLARQHKRRSD
DDDRSSDRKDGVLEEQIERLQEKVESAQSEQKNLFLVIFQRFIMILTEHLVRCETDGTSVLTPWYKNCIERLQQI
FLQHHQIIQQYMVTLENLLFTAELDPHILAVFQQFCALQA

 $\tt CGGCTGTAATCTCAGAGGCTTGTTTGCTGAGGGTGCCTGCGCACGTGCGACGGCTGCTGGTTTTGAAAC {\color{red} \underline{ATG}} AAT {\color{red} \underline{AT$ CTTTCGCTCGTCCTGGCTGCCTTTTGCTTGGGAATAGCCTCCGCTGTTCCAAAATTTGACCAAAATTTGGATACA AAGTGGTACCAGTGGAAGGCAACACACAGAAGATTATATGGCGCGAATGAAGAAGGATGGAGGAGAGCAGTGTGG GAAAAGAATATGAAAATGATTGAACTGCACAATGGGGAATACAGCCAAGGGAAACATGGCTTCACAATGGCCATG AATGCTTTTCCTGACATGACCAATGAAGAATTCAGGCAGATGATGGGTTGCTTTCGAAACCAGAAATTCAGGAAG CCAGTGAAGAATCAGAAACAGTGTGGTTCTTGTTGGGCTTTTAGTGCGACTGGTGCTCTTGAAGGACAGATGTTC CGGAAAACTGGGAAACTTGTCTCACTGAGCGAGCAGAATCTGGTGGACTGTTCGCGTCCTCAAGGCAATCAGGGC TGCAATGGTGGCTTCATGGCTAGGGCCTTCCAGTATGTCAAGGAGAACGGAGGCCTGGACTCTGAGGAATCCTAT CCATATGTAGCAGTGGATGAAATCTGTAAGTACAGACCTGAGAATTCTGTTGCTAATGACACTGGCTTCACAGTG GTCGCACCTGGAAAGGAGAAGGCCCTGATGAAAGCAGTCGCAACTGTGGGGCCCATCTCCGTTGCTATGGATGCA GGTGTTCTGGTGGTTGGCTACGGCTTTGAAGGAGCAAATTCGAATAACAGCAAGTATTGGCTCGTCAAAAACAGC TGGGGTCCAGAATGGGCTCGAATGGCTATGTAAAAATAGCCAAAGACAAGAACAACCACTGTGGAATCGCCACA  $\tt GCAGCCAGCTACCCCAATGTG{\color{red}{\textbf{TGA}}} GCTGATGGATGGTGAGGAGGACGTTAAGGACAGCATGTCTGGGGAAAT$ TTTATCTTGAAACTGACCAAACGCTTATTGTGTAAGATAAACCAGTTGAATCATTGAGGATCCAAGTTGAGATTT TAATTCTGTGACATTTTTACAAGGGTAAAATGTTACCACTACTTTAATTATTGTTATACACAGCTTTATGATATC AAAGACTCATTGCTTAATTCTAAGACTTTTGAATTTTCATTTTTTAAAAAGATGTACAAAACAGTTT

# 2965/6881 FIGURE 2737

MNLSLVLAAFCLGIASAVPKFDQNLDTKWYQWKATHRRLYGANEEGWRRAVWEKNMKMIELHNGEYSQGKHGFTM AMNAFPDMTNEEFRQMMGCFRNQKFRKGKVFREPLFLDLPKSVDWRKKGYVTPVKNQKQCGSCWAFSATGALEGQ MFRKTGKLVSLSEQNLVDCSRPQGNQGCNGGFMARAFQYVKENGGLDSEESYPYVAVDEICKYRPENSVANDTGF TVVAPGKEKALMKAVATVGPISVAMDAGHSSFQFYKSGIYFEPDCSSKNLDHGVLVVGYGFEGANSNNSKYWLVK NSWGPEWGSNGYVKIAKDKNNHCGIATAASYPNV

## 2966/6881 FIGURE 2738

ATGAAGATCAAGATCGTGACAGGCAGTGGCGCGAGGCTTGAGTTGGGAAACCAGTTCTCCCACTTCATTAATAAT
GATGTCGATGTTCCTGGCAGTGTTTATACCAAATGCTACTTTGACCTTTGCCCTTGGCACACGACAGTAGCCTA
TATTTGCCATTTTGTCTTCTTGACATAGAAAGAGCATGGGAACTGAAGGTAATAAAGCTGGAATTTATGCAGCTC
TTTCGGTCTCCACAGCTCGGGGTCTTGCCACAGACACAGCGCCCCACGAGTTCTGGCACTTTGGTCAACGTTTATA
AACGGGCTCTCCTCTGCCGCCGCGGGCATGCGCTTTCCCCAAGACTCTGAGGCCACTTTTGCTCTCAGAGGCACA
CAGAAGAGACATCGGGCGCATGGCAAGCGGGCAGCTGAAGATGATGATGATGATGTCGATACCAAGAAGCAG
AAGACCGACAAGGATGACTAG

# 2967/6881 FIGURE 2739

 ${\tt MKIKIVTGSGARLELGNQFSHFINNDVDVPGSVYTKCYFDLCALAHDSSLYLPFCLLDIERAWELKVIKLEFMQLFRSPQLGVLPQTQRPRVLALWSTFINGLSSAAAGMRFPQDSEATFALRGTQKRHRAHGKRAAEDDEDDDVDTKKQKTDKDD$ 

### 2968/6881 FIGURE 2740

# 2969/6881 FIGURE 2741

 ${\tt MPGPTPSGTNVGSSGRSPSKAVAARAAGSTVRQRKNASCGTRSAGRTTSAGTGGMWRFYTEDSPGLKVGPVPVLV}\\ {\tt MSLLFIASVFMLHIWGKYTRS}$ 

GTGACCCAGAAGTCCTCTGGCCCCTGGGCCTTCAGCAGCTGCACCTACGTGAGTGGGCCTGGCGTCTGCATCAGC TCCTTGAGCTGCTCCCGAGTGGGGAGCAGCAGCTTTCGGGGTGGCCTGGGTGGAGGCTATGGTGGGGCCAGTGGC ATGGGAGGCATCATCGCCATCATGGTCAACCAGAGCCTGTTGAGCCCCCTTAACCTGGAGGTGGACCCCAACATC CAGGCCGTGTGTACCCAGGAGAAGGAGCAGATCAAGACCCTCAACAACAAGTTTGCCTCCTTCATCGACAAGGTA TGGTTCCTGGAGCAGCAGCAGCAGGTGCTGGAGCCAAGTGGAGCCTCCTGCAGCAGCAGAAGATGGCTCGGAGT AACATGGACAACATGTTGGAGAGCTACATCAACAACCTTAGGCGGCAGCTGGAGACTCTGGGCCAGGAGAAGCTG  ${\tt AAGCTGGAAGCAGAGCTTGGCAACATGCAGGGGCTGGGGGAGGACTTCAAGAACAAGTATGAGGATGAGATCAAT}$ AAGCATACGGAGGTGGAGAATGAATTTGTCCTCATCAAGAAGGATGTTGATGAAGCTTACATGAACAAGGCAGAA CTGGAGTCCCTCCTGGAAGGGCTGACTGACGAGATCAACTTCCTCAGGCAGCTGTATGAAGAGGAGATCCGGGAG CTGCAGTCCCAGATCTCCGACATGTCTATGGTGCTGTCCATGGACTACAGCTGCTCTCGGGACATGGACAGCATC ATCCCTGAGGTCAAGGTGCAGTATGAGGAGATTGCCAACTGCAGCCGGGCTGAGGCTGAGAGCATGTACCAGATC AAGTATGAGGAGCTGCAGACGCTGGGAAGTACGGGGATGACCTAAGCCGCACAAAGACTGAGATCTCCGAG ATGAACCGGAACATCAGCTGGCTCCAGGCTGAGACCGAGGGCCTCAAAGGCCAGAGGGCTTCCCTGGAGGCCGCC ATCACAGATGCCGAGCAGCGTGGGGAGCTGGCTGTTAAGGATGCCAACGCCAAGCTGTCCGAGCTGGAGGCCGCC CTGCAGCGGGCCAAGCAGGACATGATGGGGCAGCTGCGTGAGTACCAGGAGCTGATGAACGTCGGGCTTACCCTG AGTATCCATACGAAGACCACCAGCAGCTATGCAGGTGGGCTGAGCTCGGCCTATGGGGGGCCTCACAAGCCCCGGC ATCATCTACCGCCTGGGCTCCAGCTTTGGCTCTGCCGCGGGCTCCAGCTCCTTCAGCCGCACCAGCTCCACCAGG  ${\tt GCCGTGGTTGTGAGGAAGATCGAGACCCATGATGGCAAGCTGGAGTCCGAGTCCTGACGTCCTGTCCAAG{\tt TGA}$ 

### 2971/6881 FIGURE 2743

MSTPSGISTWLSLPVSTPASITSIRVTQKSSGPWAFSSCTYVSGPGVCISSLSCSRVGSSSFRGGLGGGYGGASG MGGIIAIMVNQSLLSPLNLEVDPNIQAVCTQEKEQIKTLNNKFASFIDKVWFLEQQNKVLETKWSLLQQQKMARS NMDNMLESYINNLRRQLETLGQEKLKLEAELGNMQGLGEDFKNKYEDEINKHTEVENEFVLIKKDVDEAYMNKAE LESLLEGLTDEINFLRQLYEEEIRELQSQISDMSMVLSMDYSCSRDMDSIIPEVKVQYEEIANCSRAEAESMYQI KYEELQTLAGKYGDDLSRTKTEISEMNRNISWLQAETEGLKGQRASLEAAITDAEQRGELAVKDANAKLSELEAA LQRAKQDMMGQLREYQELMNVGLTLDIEIATYRKLLEGEESRLESGMQNVSIHTKTTSSYAGGLSSAYGGLTSPG IIYRLGSSFGSAAGSSSFSRTSSTRAVVVRKIETHDGKLESESSDVLSK

#### 2972/6881 FIGURE 2744

AAAACATGATGAGAAGTCTATAAAAATTGTGTGCTACCAAAGATCTGTCTTATTTGGCAGCTGCCTCACCC  ${\tt ACAGCTTTTGATATCTAGGAGGACTCTTCTCCCCAAACTACCTGTCACC{\tt ATG}{\tt GCCCACCGATTTCCAGCCCTCA}}$ CCCAGGAGCAGAAGAAGGAGCTCTCAGAAATTGCCCAGAGCATTGTTGCCAATGGAAAGGGGATCCTGGCTGCAG ATGAATCTGTAGGTACCATGGGGAACCGCCTGCAGAGGATCAAGGTGGAAAACACTGAAGAGAACCGCCGGCAGT TCCGAGAAATCCTCTTCTCTGTGGACAGTTCCATCAACCAGAGCATCGGGGGTGTGATCCTTTTCCACGAGACCC TCTACCAGAAGGACAGCCAGGGAAAGCTGTTCAGAAACATCCTCAAGGAAAAGGGGGATCGTGGTGGGAATCAAGT TAGACCAAGGAGGTGCTCCTCTTGCAGGAACAAACAAAGAAACCACCATTCAAGGGCTTGATGGCCTCTCAGAGC GCTGTGCTCAGTACAAGAAAGATGGTGTTGACTTTGGGAAGTGGCGTGCTGTGCTGAGGATTGCCGACCAGTGTC CATCCAGCCTCGCTATCCAGGAAAACGCCAACGCCCTGGCTCGCTACGCCAGCATCTGTCAGCAGAATGGACTGG TACCTATTGTTGAACCAGAGGTAATTCCTGATGGAGACCATGACCTGGAACACTGCCAGTATGTTACTGAGAAGG TCCTGGCTGCTGTCTACAAGGCCCTGAATGACCATCATGTTTACCTGGAGGGCACCCTGCTAAAGCCCAACATGG TGACTGCTGGACATGCCTGCACCAAGAAGTATACTCCAGAACAAGTAGCTATGGCCACCGTAACAGCTCTCCACC GTACTGTTCCTGCAGCTGTTCCTGGCATCTGCTTTTTGTCTGGTGGCATGAGTGAAGAGGATGCCACTCTCAACC TCAATGCTATCAACCTTTGCCCTCTACCAAAGCCCTGGAAACTAAGTTTCTCTTATGGACGGGCCCTGCAGGCCA GTGCACTGGCTGCCTGGGGTGGCAAGGCTGCAAACAAGGAGGCAACCCAGGAGGCTTTTATGAAGCGGGCCATGG CTAACTGCCAGGCGGCCAAAGGACAGTATGTTCACACGGGTTCTTCTGGGGCTGCTTCCACCCAGTCGCTCTTCA  $\texttt{CAGCCTGCTATACCTAC} \underline{\textbf{TAG}} \texttt{GGTCCAATGCCCGCCAGCCTAGCTCCAGTGCTTCTAGTAGGAGGGCTGAAAGGGA}$ GCAACTTTTCCTCCAATCCTGGAAATTCGACACAATTAGATTTGAACTGCTGGAAATACAACACATGTTAAATCT TAAGTACAAGGGGGAAAAAATAAATCAGTTATTGAAACATAAAAATGAATACCAAGGACCTGATCAAATTTCACA AATATCGGCTCCTCATCCAAAGAACAACTGCTGATTGAAACACCTCATTAGCTGAGTGTAGAGAAGTGCATCTTA 

### 2973/6881 FIGURE 2745

MAHRFPALTQEQKKELSEIAQSIVANGKGILAADESVGTMGNRLQRIKVENTEENRRQFREILFSVDSSINQSIG
GVILFHETLYQKDSQGKLFRNILKEKGIVVGIKLDQGGAPLAGTNKETTIQGLDGLSERCAQYKKDGVDFGKWRA
VLRIADQCPSSLAIQENANALARYASICQQNGLVPIVEPEVIPDGDHDLEHCQYVTEKVLAAVYKALNDHHVYLE
GTLLKPNMVTAGHACTKKYTPEQVAMATVTALHRTVPAAVPGICFLSGGMSEEDATLNLNAINLCPLPKPWKLSF
SYGRALQASALAAWGGKAANKEATQEAFMKRAMANCQAAKGQYVHTGSSGAASTQSLFTACYTY

GCCGCTTTGGGGGCCGCGGTCTCTCCGCAGCTCGCGGGTCACATGGCCCGCCTGAGCAAGGGGAGCCCTGCGCCT GAGCTGCGAGGCGGGAGGAGGTGAGGCTCCGGCGCACACCCCAAACCGCGCTGCGCCCCCTCCTTCCGGGCCCCGG GAGCTGGTCGCCCCAACCGGGTTTGATTTCTGATGACTCTGGCCTGAGTTCCAGGATGGTTTTTTCTTGGGACCA GACATGAACAAAAGTTGACCTCATGAGCACTTCAACCTCTCCAGCTGCCATGCTCCTCCGGAGGCTGCGGCGACT GTCCTGGGGCAGCACTGCTGTCCAGCTCTTCATCCTAACAGTGGTGACGTTTGGCCTGCTGGCCCCCTGGCCTG TCACCGACTTCTACACTCTTACTTCTATCTGCGCCATTGGCATCTGAACCAAATGAGCCAAGAGTTCCTGCAGCA AAGCTTGAAAGAGGGTGAGGCTGCCCTCCACTATTTTGAGGAGCTTCCCTCTGCCAATGGCTCAGTGCCCATTGT CTGGCAGGCCACCCCCGGCCCTGGCTGATCACCATCATCACTGTGGACAGGCAGCCTGGCTTCCACTACGT CCTGCAGGTTGTCCCAGTTCCACCGGCTTCTTCAGCAATGTGGCCCCCAGTGCGAGGGGCACCAACTCTTCCT GTGCAACGTGGAGCGTAGTGTGAGCCATTTTGATGCCAAGTTGCTCTCCAAGTATGTCCCTGTGGCCAATCGCTA TGAGGGCACTGAGGATGATTATGGTGATGACCCTTCGACCAACTCGTTTGAGAAAGAGAAGCAGGACTATGTCTA TTGCCTGGAGTCATCCCTGCAGACCTACAACCCAGACTACGTCCTGATGGTAGAAGACGATGCTGTACCAGAAGA GCAGATCTTCCCAGTCTTGGAGCACCTTCTGCGGGCTCGCTTCTCTGAGCCACATCTCAGAGATGCCCTTTATCT CAAGCTGTATCACCCCGAGAGGCTCCAGCACTACATCAATCCAGAGCCCATGCGGATCCTGGAATGGGTTGGTGT AGGCATGTTGCTGGGGCCCTTACTAACCTGGATATACATGAGGTTTGCCAGCCGCCCAGGGTTTAGCTGGCCTGT AATGCTCTTCTTCTCCCTGTATAGCATGGGTCTGGTGGAGCTGGTGGGTCGGCACTATTTCCTGGAACTGCGGCG GCTGAGTCCTTCCCTGTACAGTGTGGTTCCTGCCTCTCAGTGTTGCACCCCAGCCATGCTCTTCCCCGGCACCTGC GGCCCGCCGGACCCTCACCTACCTGTCCCAAGTGTACTGCCACAAGGGCTTTGGCAAGGACATGGCACTGTACTC GCTGTTGAGGGCCAAGGGAGAGAGGGCCTATGTAGTGGAGCCGAACCTCGTGAAACACATCGGGCTCTTCTCCAG  ${\tt TCTCCGGTACAACTTTCATCCCAGTCTCCTC}$ GATTCAAATATTTATCTCTTTATTTAGACATGGTTGCCTGCAGGTATTTCACTGTTTACTGTTGGTAGAGATATA GGCACTGGGGCAGCTGAGGAACCTCAATATGTTAAGAGCCTTGGCTTTGGTAGCCTCCTGGCAGGAGCAGCAGTT TTGAACACTGATTATATTCTCCATTTGTTTTTAAGCTCTGCTTTGTGTTAGAGCTTGTGACTGCCAAAAATTTTG TGCACAGTGATATGACTGTTTTAGGATCTTAAGGGTAGAATTTTGTGAAAGGTGAGATCCTTTGGAATTGAGTTC TTTCTCATTGGGTATGAAAATGGATGTATGTTTAGAATATATGCCCAACGAGGCAGGACCATGTGGATAGATTCC ΑΑΑΑΑΑΑΑ

MSTSTSPAAMLLRRLRRUSWGSTAVQLFILTVVTFGLLAPLACHRLHSYFYLRHWHLNQMSQEFLQQSLKEGEA ALHYFEELPSANGSVPIVWQATPRPWLVITIITVDRQPGFHYVLQVVSQFHRLLQQCGPQCEGHQLFLCNVERSV SHFDAKLLSKYVPVANRYEGTEDDYGDDPSTNSFEKEKQDYVYCLESSLQTYNPDYVLMVEDDAVPEEQIFPVLE HLLRARFSEPHLRDALYLKLYHPERLQHYINPEPMRILEWVGVGMLLGPLLTWIYMRFASRPGFSWPVMLFFSLY SMGLVELVGRHYFLELRRLSPSLYSVVPASQCCTPAMLFPAPAARRTLTYLSQVYCHKGFGKDMALYSLLRAKGE RAYVVEPNLVKHIGLFSSLRYNFHPSLL

GAGATACGCGCACACACACACACACACACACACACTCAGATTTCCCGGACCCTGGTTTTCCTCCTGTGACCCTTTCGGG GCCGGGCTCTCACCCTAAAGAAGCAGCCCCGCCCTGGGGTGGCCCCACCCTCTCTTGGGACCTGTCATAAGTCGG ACCCCGGGCGCCCGGCTGCGCAGTCCCAGCCGCCTTCCCCAGGCAGTGGAACCTTCGGGCTCCTGAGCTTCAGGA TGGTTCGTACTAAGACATGGACCCTGAAGAAGCACTTTGTTGGCTATCCTACTAATAGTGACTTTGAGTTGAAGA CAGCTGAGCTCCCACCCTTAAAAAATGGAGAGGTCCTGCTTGAAGCTTTGTTCCTCACCGTGGATCCCTACATGA GAGTGGCAGCCAAAAGATTGAAGGAAGGTGATACAATGATGGGGCAGCAAGTGGCCAAAGTTGTGGAAAGTAAAA ATGTAGCCCTACCAAAAGGAACTATTGTACTGGCTTCTCCAGGCTGGACAACGCACTCCATTTCTGATGGGAAAG ATCTGGAAAAGCTGCTGACAGAGTGGCCAGACACAATACCACTGTCTTTGGCTCTGGGGACAGTTGGCATGCCAG GCCTGACTGCCTACTTGGCCTACTTGAAATCTGTGGTGTGAAGGGTGGAGAAACAGTGATGGTTAATGCAGCAG CTGGAGCTGTGGGCTCAGTCGTGGGGCAGATTGCAAAGCTCAAGGGCTGCAAAGTTGTTGGAGCAGTAGGGTCTG ATGAAAAGGTTGCCTACCTTCAAAAGCTTGGATTTGATGTCGTCTTTAACTACAAGACGGTAGAGTCTTTGGAAG AAACCTTGAAGAAAGCGTCTCCTGATGGTTATGATTGTTATTTTTGATAATGTAGGTGGAGAGTTTTCAAACACTG TTATCGGCCAGATGAAGAAATTTGGAAGGATTGCCATATGTGGAGCCATCTCTACATATAACAGAACCGGCCCAC TTCCCCCAGGCCCACCCCCAGAGATTGTTATCTATCAGGAGCTTCGCATGGAAGCTTTTGTCGTCTACCGCTGGC AAGGAGATGCCCGCCAAAAAGCTCTGAAGGACTTGCTGAAATGGGTCTTAGAGGGTAAAATCCAGTACAAGGAAT ATATCATTGAAGGATTTGAAAACATGCCAGCTGCATTTATGGGAATGCTGAAAGGAGATAATTTGGGGAAGACAA TAGTGAAAGCATGAAAAAGGGACACATGGAATCTGGAGGCCATTTAGATGAŤTAGTTAATTTGTTTTTCACCAT TTAGCAAAAATGTATACTACCTTAAATGTCTTAAGAAATAGTACTCATAATGAGTTTGAGCTACTTAATAAAATA CATTTAAGTGGTATGTAA

MVRTKTWTLKKHFVGYPTNSDFELKTAELPPLKNGEVLLEALFLTVDPYMRVAAKRLKEGDTMMGQQVAKVVESK NVALPKGTIVLASPGWTTHSISDGKDLEKLLTEWPDTIPLSLALGTVGMPGLTAYFGLLEICGVKGGETVMVNAA AGAVGSVVGQIAKLKGCKVVGAVGSDEKVAYLQKLGFDVVFNYKTVESLEETLKKASPDGYDCYFDNVGGEFSNT VIGQMKKFGRIAICGAISTYNRTGPLPPGPTPRDCYLSGASHGSFCRLPLARRCPPKSSEGLAEMGLRG

GAACCTCCATCTTCCAGTAATTCGCCAAAATGACGAACACAAAGGGAAAGAGGAGGAGGCTCCCGACATATGTTCT
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ATGTTACCCAGCATGCTGTTGGTATTGTAAACAAACAAGTTAAGGGCAAGATTCTTGCCAAGAGAATTAATGTGC
ATATTGAGCACATTAAGCACTCTGAGCCGAGATAGCTTCCTGAAATGTGTGAAGGAAAATGATCAGAAAAAAGAAA
GAAGCCAAAGAGAAAGGTACCTGGGTTCAACTGAAGTGCCAGCCTGCTCCACCCAGAGAAGCACCTTTGTGAGA
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ATAAATAAAAGACCTCTGGGCTGTTA

 ${\tt TGGACGGTCTGAAAGGGAGTGTTCGGGTTTCGCTGGGGCCTCGCGGCTCCAGAGCCCAGC{\color{red} {\bf ATG}}{\tt GCTTCCTCGCGA}}$ GCCTCTTCCACGCAGGCAACCAAAACTAAAGCACCCGACGACTTAGTTGCTCCGGTCGTGAAGAAACCACACATC TATTATGGAAGTTTGGAAGAAGAGGAGGGAGGGTCTGGCCAAAGGAGAGTCTGGGATTTTGGGGAAAGACGGA CTTAAAGCAGGGATCGAAGCTGGAAATATTAATATAACCTCTGGAGAAGTGTTTGAAATTGAAGAGCGTATCAGC  ${\tt TCAGAGGTCAAAGCTTGCCTTAGAGCCTTGGGGGAACCCATCACACTTTTTGGAGAGGGGTCCTGCTGAAAGAAGA}$ GAAAGGTTAAGAAATATCCTCTCAGTTGTCGGTACTGATGCCTTGAAAAAGACCAAAAAGGATGATGAGAAGTCT ANANAGTCCAAAGAAGAGTATCAGCAAACCTGGTATCATGAAGGACCAAATAGCTTGAAGGTGGCAAGACTATGG ATTGCTAATTATTCGTTGCCCAGGGCAATGAAACGCTTGGAAGAGGCCCGACTCCATAAGGAGATTCCTGAGACA ACAAGGACCTCCCAGATGCAAGAGCTGCACAAGTCTCTCCGGTCTTTGAATAATTTTTTGCAGTCAGATTGGGGAT GATCGGCCTATCTCCTACTGTCACTTTAGTCCCAATTCCAAGATGCTGGCCACAGCTTGTTGGAGTGGGCTTTGC AAGCTCTGGTCTGTTCCTGATTGCAACCTCCTTCACACTCTTCGAGGGCATAACACAAATGTAGGAGCAATTGTA TTCCATCCCAAATCCACTGTCTCCTTGGACCCAAAAGATGTCAACCTGGCCTCTTGTGCGGCTGATGGCTCTGTG AAGCTTTGGAGTCTCGACAGTGATGAACCAGTGGCAGATATTGAAGGCCATACAGTGCGTGTGGCGCGGGTAATG TGGCATCCTTCAGGACGTTTCCTGGGCACCACCTGCTATGACCGTTCATGGCGCTTATGGGATTTGGAGGCTCAA GAGGAGATCCTGCATCAGGAAGGCCATAGCATGGGTGTGTATGACATTGCCTTCCATCAAGATGGCTCTTTGGCT GGCACTGGGGGACTGGATGCATTTGGTCGAGTTTGGGACCTACGCACAGGACGTTGTATCATGTTCTTAGAAGGC CACCTGAAAGAATCTATGGAATAAATTTCTCCCCCAATGGCTATCACATTGCAACCGGCAGTGGTGACAACACC TGCAAAGTGTGGGACCTCCGACAGCGGCGTTGCGTCTACACCATCCCTGCTCATCAGAACTTAGTGACTGGTGTC AAGTTTGAGCCTATCCATGGGAACTTCTTGCTTACTGGTGCCTATGATAACACAGCCAAGATCTGGACGCACCCA GGCTGGTCCCCGCTGAAGACTCTGGCTGGCCACGAAGGCAAAGTGATGGGCCTAGATATTTCTTCCGATGGGCAG CTCATAGCCACTTGCTCATATGACAGGACCTTCAAGCTGTGGATGGCTGAA<u>TAG</u>ATGACAATGGGAAAAGGACTT GAACCTCAAGCTCTCTAAGGAGCTGTTTTCCTCAAACGAGAAGAATTGAAGTGTTTAGTTCTATCATGTTTTC TGCCAATTACCATGCATAGACCCTCAGTAGAATTGGATTTCCATGTCAGCCCCCACTCCAGGAAGGCAGCCCAAT CCCTAGGTGATGGGGAACCCCTCTCACGGTTGAAAATTTATTACCTTTTTACGCCCTGCCACGAACTGTGTAGAC ATTGTTTTATTAATCTTTTGTTTGGCCGGCCGTGGTGGCTCACGCCTGTAATCCTAGCACTTTGGGAGGCCGAG GTGGGTAGATCGCTTGAGCTCAGGAGTTCAAGACGAGCCTGGGCAACATGGCAAATGCCGTCTCTGCAAAAAAAT TAAGCCTGGGAGGCAGAGGTTGCAGTGAGCCGAGATTGCGCCATTGCACTCTAGCCTGTGTGACAGAGCAAGACC CTGTCTCAAAAA

MASSRASSTQATKTKAPDDLVAPVVKKPHIYYGSLEEKERERLAKGESGILGKDGLKAGIEAGNINITSGEVFEI
EERISERQAEVLAEFERRKRARQINVSTDDSEVKACLRALGEPITLFGEGPAERRERLRNILSVVGTDALKKTKK
DDEKSKKSKEEYQQTWYHEGPNSLKVARLWIANYSLPRAMKRLEEARLHKEIPETTRTSQMQELHKSLRSLNNFC
SQIGDDRPISYCHFSPNSKMLATACWSGLCKLWSVPDCNLLHTLRGHNTNVGAIVFHPKSTVSLDPKDVNLASCA
ADGSVKLWSLDSDEPVADIEGHTVRVARVMWHPSGRFLGTTCYDRSWRLWDLEAQEEILHQEGHSMGVYDIAFHQ
DGSLAGTGGLDAFGRVWDLRTGRCIMFLEGHLKEIYGINFSPNGYHIATGSGDNTCKVWDLRQRRCVYTIPAHQN
LVTGVKFEPIHGNFLLTGAYDNTAKIWTHPGWSPLKTLAGHEGKVMGLDISSDGQLIATCSYDRTFKLWMAE

GGCACGAGGGACGCGGGAAGTCCGGACGCAGTAGCTCCCTGAAGCGGAGGCGAAGGGGAGTTTAAGCCCCAGCGG CGGCA<u>ATG</u>GCGGAGAGGCCCGAGGACCTAAACCTGCCCAATGCCGTGATCACCAGGATCATCAAGGAGGCGCTCC CGGACGGTGTCAACATCTCCAAGGAGGCCCGGAGCGCCATCTCCCGCGCCGCCAGCGTCTTCGTGCTGTACGCCA CATCCTGTGCTAACAACTTTGCAATGAAAGGAAAGCGGAAGACGCTGAATGCCAGTGATGTGCTCTCAGCCATGG AAGAGATGGAGTTCCAGCGGTTCGTTACCCCATTGAAAGAAGCTCTGGAAGCATATAGGCGGGAGCAGAAAGGCA ATGAGGACAATGATGAAGACGAAGAAGGCTGGAAGAAGAAGAACAGAATGAAGAGGAAGAAGTAGACAAC<u>TGA</u>A AAGGGCGGGAGACTGTGGCACCTTGGAAGGTACCACTTGAAATGAGACGTGCTACGTGTTTCTGTGAAGCTTTTC CATGCTGGGCAGAGTAGTCTCAGGCAAAAGTGCCTGAAAAGATCAGAATAAAAACTGACTAGAAATACCGTCAAA ACCAGCACTTACCAAACTCAGAGCATCTGAGTAGCAGAATCCTGTTTTGCTTCATCAATCTGAAGGTTATGGCCT TTTGACAAGAGGGATTCTGAACGACTAAATTAGTCAGTTTGCTCGCTTTTGTTTACTTAAATGTATGGTTAGATG CACAGAGGCAGCCAAGGCTCAGGAAAAACTGGGGCTTTGCTTATGGTCAGCCTATGTTTGATTGCACAGTCTTTG ACAATAGTAGCTTACTAAGACTGCTCAGAATGAGTAAGCTTTAGGAAACTACTAAAATGCTGTGGGAGAATAACA AAATCCGTTCTCTCTCTCACTTGACAGAAGCATTAACTGAATTTTGTTTTTCATAGACCCACTTGGCCCAAAAC CTTTCTATATTGCCTGTAGATGATCGGCCTGCTGGTGTGGTAGTAATCTGATCACAGATATTCTTAAATCAGCAG TGTGGAATGGTATTAGTCAAACATGGTGCCAGTGTCTTTTACAAAAACAGATGGCATAGTGTCAGATGTACCTTA CTCTCTGCTACTGTACAGCTTTAGGATTTGTCATCACCTCCCGGAAGGTGTAAAACCCCAGGCTTCCTCTTCTTG TAGTCCATCTCCCAGACTTGTGACTATGGCTTTTCATTCTTCAATTCATGACGAGTGCCAAACTTGATTTTCTCT CATCTGCCTCCTTTTCTCACTTCTGTCAGTCTGTAAGCTTTGATAACCTGCTTAATACTCCAAAGTGTGAGTTCC TCTGATCTCTTGATTCCTTAGTTCTAATCTCACGTTTTGTTTTTAAGAGATGGAGTCTCTCACTCTGTGGCCCAG GCTGGAGTGCAGTGGCATGATCATAGCTCATTGCATCCTTGAAATCCTGGGCTCAGGTGATCCTCCCGCCTGAGC CTCCTGAGTATCTGGGACTACAGATGCGTGCCACCAAGCCTGGCTAATTTTGTCTCATGTCTTCTAAAAATTATT TTGTGAAGCCCCTTCACAAAAAACCTTAAGGGAAATCTGATGGTGCTCAGGAATCTAACTCTCCCTAAACCATCC TCTTTAACTGCTTCTAAAATATCTCTGTTGGCCTTTCTTAGCCTTTTTCTGTTTCCATTCAGTGCTCCAAGCGCT TTTTGTTTCTAAGTTGAGTGCTTGGGGTTTGACAGGTAGTGACGTGTAGTTTGACACTGTTAACTTGTTAAATAC AAAAAAAAAAAA

 ${\tt MAERPEDLNLPNAVITRIIKEALPDGVNISKEARSAISRAASVFVLYATSCANNFAMKGKRKTLNASDVLSAMEE}\\ {\tt MEFQRFVTPLKEALEAYRREQKGKKEASEQKKKDKDKKTDSEEQDKSRDEDNDEDEERLEEEEQNEEEEVDN}$ 

### 2983/6881 FIGURE 2755A

ACCGGCCACAGCCTGCCTACTGTCACCCGCCTCTCCCGCGCGCAGATACACGCCCCCGCCTCCGTGGGCACAAAG GCAGCGCTGCTGGGGAACTCGGGGGAACGCGCACGTGGGAACCGCCGCAGCTCCACACTCCAGGTACTTCTTCCA AGGACCTAGGTCTCTCGCCCATCGGAAAGAAAATAATTCTTTCAAGAAGATCAGGGACAACTGATTTGAAGTCTA CTCTGTGCTTCTAAATCCCCAATTCTGCTGAAAGTGAGATACCCTAGAGCCCTAGAGCCCCAGCAGCACCCAGCC GAAGGTGGGGTCCTCAAGAAAGTCATCCGGCACAAGCGACAGAGTGGGGTGAACGCCACCCTGCCAGAAGAAAC CAGCCAGTGGTGTTTAACCACGTTTACAACATCAAGCTGCCAGTGGGATCCCAGTGTTCGGTGGATCTGGAGTCA GCCAGTGGGGAGAAAGACCTGGCACCGCCTTCAGAGCCCAGCGAAAGCTTTCAGGAGCACACAGTGGATGGGGAA AACCAGATTGTCTTCACACATCGCATCAACATCCCCCGCCGGGCCTGTGGCTGTGCCGCAGCCCCTGATGTTAAG GAGCTGCTGAGCAGACTGGAGGAGCTGGAGAACCTGGTGTCTTCCCTGAGGGAGCAATGTACTGCAGGAGCAGGC TGCTGTCTCCAGCCTGCCACAGGCCGCTTGGACACCAGGCCCTTCTGTAGCGGTCGGGGCAACTTCAGCACTGAA GGATGTGGCTGTGTCTGCGAACCTGGCTGGAAAGGCCCCAACTGCTCTGAGCCCGAATGTCCAGGCAACTGTCAC TGCCCCAGCGACTGCAATGACCAGGGCAAGTGCGTAAATGGAGTCTGCATCTGTTTCGAAGGCTACGCCGGGGCT CACGATGGCTTTGCAGGCGATGACTGCAACAAGCCTCTGTGTCTCAACAATTGCTACAACCGTGGACGATGCGTG GAGAATGAGTGCGTGTGATGAGGGGTTTCACGGGCGAAGACTGCAGTGAGCTCATCTGCCCCAATGACTGCTTC GACCGGGGCCGCTGCATCAATGGCACCTGCTACTGCGAAGAAGGCTTCACAGGTGAAGACTGCGGGAAACCCACC TGCCCACATGCCTGCCACACCCAGGGCCGGTGTGAGGAGGGGCAGTGTGTATGTGATGAGGGCTTTGCCGGTGTG GACTGCAGCGAGAAGAGGTGTCCTGCTGACTGTCACAATCGTGGCCGCTGTGTAGACGGGCGGTGTGAGTGTGAT GATGGTTTCACTGGAGCTGACTGTGGGGAGCTCAAGTGTCCCAATGGCTGCAGTGGCCATGGCCGCTGTGTCAAT CGGGGCCGCTGTGTCGAGGGCAAATGTGTATGTGAGCAAGGCTTCAAGGGCTATGACTGCAGTGACATGAGCTGC CCTAATGACTGTCACCAGCACGGCCGCTGTGTGAATGGCATGTGTTTTGTGATGACGGCTACACAGGGGAAGAC GGCTTCACCGGCCCTGACTGTGCAGAACTCTCCTGTCCAAATGACTGCCATGGCCAGGGTCGCTGTGTAATGGG CAGTGCGTGTGCCATGAAGGATTTATGGGCAAAGACTGCAAGGAGCAAAGATGTCCCAGTGACTGTCATGGCCAG GGCCGCTGCGTGGACGGCCAGTGCATCTGCCACGAGGGCTTCACAGGCCTGGACTGTGGCCAGCACTCCTGCCCC AGTGACTGCAACAACTTAGGACAATGCGTCTCGGGCCGCTGCATCTGCAACGAGGGCTACAGCGGAGAAGACTGC TCAGAGGTGTCTCCCCAAAGACCTCGTTGTGACAGAAGTGACGGAAGAGACGGTCAACCTGGCCTGGGACAAT CCTGGGGACCAGACGTCCACCATCATCCAGGAGCTGGAGCCTGGTGTGGAGTACTTTATCCGTGTATTTGCCATC CTGGAGAACAAGAAGAGCATTCCTGTCAGCGCCAGGGTGGCCACGTACTTACCTGCACCTGAAGGCCTGAAATTC AAGTCCATCAAGGAGACATCTGTGGAAGTGGAGTGGGATCCTCTAGACATTGCTTTTGAAACCTGGGAGATCATC TTCCGGAATATGAATAAGAAGATGAGGGAGAGATCACCAAAAGCCTGAGGAGGCCAGAGACCTCTTACCGGCAA ACTGGTCTAGCTCCTGGGCAAGAGTATGAGATATCTCTGCACATAGTGAAAAACAATACCCGGGGCCCTGGCCTG AAGAGGGTGACCACCACACGCTTGGATGCCCCCAGCCAGATCGAGGTGAAAGATGTCACAGACACCACTGCCTTG ATCACCTGGTTCAAGCCCCTGGCTGAGATCGATGGCATTGAGCTGACCTACGGCATCAAAGACGTGCCAGGAGAC CGTACCACCATCGATCTCACAGAGGACGAGAACCAGTACTCCATCGGGAACCTGAAGCCTGACACTGAGTACGAG GTGTCCCTCATCTCCCGCAGAGGTGACATGTCAAGCAACCCAGCCAAAGAGACCTTCACAACAGGCCTCGATGCT CCCAGGAATCTTCGACGTGTTTCCCAGACAGATAACAGCATCACCCTGGAATGGAGGAATGGCAAGGCAGCTATT GACAGTTACAGAATTAAGTATGCCCCCATCTCTGGAGGGGACCACGCTGAGGTTGATGTTCCAAAGAGCCAACAA GCCACAACCAAAACCACACTCACAGGTCTGAGGCCGGGAACTGAATATGGGATTTGGAGTTTCTGCTGTGAAGGAA GACAAGGAGAGCAATCCAGCGACCATCAACGCAGCCACAGAGTTGGACACGCCCAAGGACCTTCAGGTTTCTGAA ACTGCAGAGACCAGCCTGACCCTGCTCTGGAAGACACCGTTGGCCAAATTTGACCGCTACCGCCTCAATTACAGT CTCCCCACAGGCCAGTGGGTGGGAGTGCAGCTTCCAAGAAACACCACTTCCTATGTCCTGAGAGGCCTGGAACCA GGACAGGAGTACAATGTCCTCCTGACAGCCGAGAAAGGCAGACACAAGAGCAAGCCCGCACGTGTGAAGGCATCC ACTGAACAAGCCCCTGAGCTGGAAAACCTCACCGTGACTGAGGTTGGCTGGGATGGCCTCAGACTCAACTGGACC

#### 2984/6881 FIGURE 2755B

GCAGCTGACCAGGCCTATGAGCACTTTATCATTCAGGTGCAGGAGGCCAACAAGGTGGAGGCAGCTCGGAACCTC ACCGTGCCTGGCAGCCTTCGGGCTGTGGACATACCGGGCCTCAAGGCTGCTACGCCTTATACAGTCTCCATCTAT GGGGTGATCCAGGGCTATAGAACACCAGTGCTCTCTGCTGAGGCCTCCACAGGGGAAACTCCCAATTTGGGAGAG GTCGTGGTGGCCGAGGTGGGCTGGGATGCCCTCAAACTCAACTGGACTGCTCCAGAAGGGGCCTATGAGTACTTT TTCATTCAGGTGCAGGAGGCTGACACAGTAGAGGCAGCCCAGAACCTCACCGTCCCAGGAGGACTGAGGTCCACA GACCTGCCTGGGCTCAAAGCAGCCACTCATTATACCATCACCATCCGCGGGGTCACTCAGGACTTCAGCACAACC CCTCTCTCTGTTGAAGTCTTGACAGAGGAGGTTCCAGATATGGGAAACCTCACAGTGACCGAGGTTAGCTGGGAT GCTCTCAGACTGAACTGGACCACGCCAGATGGAACCTATGACCAGTTTACTATTCAGGTCCAGGAGGCTGACCAG GTGGAAGAGGCTCACAATCTCACGGTTCCTGGCAGCCTGCGTTCCATGGAAATCCCAGGCCTCAGGGCTGGCACT CCTTACACAGTCACCCTGCACGCGAGGTCAGGGGCCACAGCACTCGACCCCTTGCTGTAGAGGTCGTCACAGAG GATCTCCCACAGCTGGGAGATTTAGCCGTGTCTGAGGTTGGCTGGGATGGCCTCAGACTCAACTGGACCGCAGCT GACAATGCCTATGAGCACTTTGTCATTCAGGTGCAGGAGGTCAACAAAGTGGAGGCAGCCCAGAACCTCACGTTG CCTGGCAGCCTCAGGGCTGTGGACATCCCGGGCCTCGAGGCTGCCACGCCTTATAGAGTCTCCATCTATGGGGTG ATCCGGGGCTATAGAACACCAGTACTCTCTGCTGAGGCCTCCACAGCCAAAGAACCTGAAATTGGAAACTTAAAT GTTTCTGACATAACTCCCGAGAGCTTCAATCTCTCCTGGATGGCTACCGATGGGATCTTCGAGACCTTTACCATT AGTGCCACAGCCACGACAGAGGCCCTGCCCCTTCTGGAAAACCTAACCATTTCCGACATTAATCCCTACGGGTTC ACAGTTTCCTGGATGGCATCGGAGAATGCCTTTGACAGCTTTCTAGTAACGGTGGTGGATTCTGGGAAGCTGCTG GACCCCCAGGAATTCACACTTTCAGGAACCCAGAGGAAGCTGGAGCTTAGAGGCCTCATAACTGGCATTGGCTAT GAGGTTATGGTCTCTGGCTTCACCCAAGGGCATCAAACCAAGCCCTTGAGGGCTGAGATTGTTACAGAAGCCGAA CCGGAAGTTGACAACCTTCTGGTTTCAGATGCCACCCCAGACGGTTTCCGTCTGTCCTGGACAGCTGATGAAGGG GTCTTCGACAATTTTGTTCTCAAAATCAGAGATACCAAAAAGCAGTCTGAGCCACTGGAAATAACCCTACTTGCC CCCGAACGTACCAGGGACATAACAGGTCTCAGAGAGGCTACTGAATACGAAATTGAACTCTATGGAATAAGCAAA GGAAGGCGATCCCAGACAGTCAGTGCTATAGCAACAACAGCCATGGGCTCCCCAAAGGAAGTCATTTTCTCAGAC ATCACTGAAAATTCGGCTACTGTCAGCTGGAGGGCACCCACAGCCCAAGTGGAGAGCTTCCGGATTACCTATGTG CCCATTACAGGAGGTACACCCTCCATGGTAACTGTGGACGGAACCAAGACTCAGACCAGGCTGGTGAAACTCATA CCTGGCGTGGAGTACCTTGTCAGCATCATCGCCATGAAGGGCTTTGAGGAAAGTGAACCTGTCTCAGGGTCATTC ACCACAGCTCTGGATGGCCCATCTGGCCTGGTGACAGCCAACATCACTGACTCAGAAGCCTTGGCCAGGTGGCAG TCCGGGAACACAGTGGAGTATGCTCTGACCGACCTCGAGCCTGCCACGGAATACACACTGAGAATCTTTGCAGAG AAAGGGCCCCAGAAGAGCTCAACCATCACTGCCAAGTTCACAACAGACCTCGATTCTCCAAGAGACTTGACTGCT ACTGAGGTTCAGTCGGAAACTGCCCTCCTTACCTGGCGACCCCCCGGGCATCAGTCACCGGTTACCTGCTGGTC TATGAATCAGTGGATGGCACAGTCAAGGAAGTCATTGTGGGTCCAGATACCACCTCCTACAGCCTGGCAGACCTG AGCCCATCCACCCACTACACAGCCAAGATCCAGGCACTCAATGGGCCCCTGAGGAGCAATATGATCCAGACCATC TTCACCACAATTGGACTCCTGTACCCCTTCCCCAAGGACTGCTCCCAAGCAATGCTGAATGGAGACACGACCTCT GGCCTCTACACCATTTATCTGAATGGTGATAAGGCTGAGGCGCTGGAAGTCTTCTGTGACATGACCTCTGATGGG GGTGGATGGATTGTGTTCCTGAGACGCAAAAACGGACGCGAGAACTTCTACCAAAACTGGAAGGCATATGCTGCT GGATTTGGGGACCGCAGAGAAGAATTCTGGCTTGGGCTGGACAACCTGAACAAAATCACAGCCCAGGGGCAGTAC GAGCTCCGGGTGGACCTGCGGGACCATGGGGAGACAGCCTTTGCTGTCTATGACAAGTTCAGCGTGGGAGATGCC AAGACTCGCTACAAGCTGAAGGTGGAGGGGTACAGTGGGACAGCAGGTGACTCCATGGCCTACCACAATGGCAGA TCCTTCTCCACCTTTGACAAGGACACAGATTCAGCCATCACCAACTGTGCTCTGTCCTACAAAGGGGCTTTCTGG TACAGGAACTGTCACCGTGTCAACCTGATGGGGAGATATGGGGACAATAACCACAGTCAGGGCGTTAACTGGTTC CACTGGAAGGGCCACGAACACTCAATCCAGTTTGCTGAGATGAAGCTGAGACCAAGCAACTTCAGAAATCTTGAA GGCAGGCGCAAACGGGCATAAATTCCAGGGACCACTGGGTGAGAGGAATAAGGCCCAGAGCGAAAAGGATT TTACCAAAGCATCAATACAACCAGCCCAACCATCGGTCCACACCTGGGCATTTGGTGAGAGTCAAAGCTGACCAT TCTCCAACATGTTTCTGTTTTGTTTGTTTGATTCAGCAAAAATCTCCCAGTGACAACATCGCAATAGTTTTTTACT

# 2985/6881 FIGURE 2755C

WO 2004/030615

 ${\tt MVSRTEGNIDDSLIGGNVSAEGPEGEGTESTVITAVDVVMNHLQETSFTKEAHKKYIKDYMKSIKGKLEELRPERVKPFMTGAAEQIKHILANFKNYHFFIGENMNPDGMVALLDYGEDGVTPYMIFFRDGLETEKC}$ 

### 2989/6881 FIGURE 2759A

AGGTTGAAGAACTTAACTCTGAAATTGAAAAGCTCAGTGCTGCCTTTGCTAAAGCCAGAGAGGCCCTACAGAAAG CACAGACCCAGGAATTTCAGGGGTCTGAAGACTATGAGACTGCTCTATCAGGAAAGGAAGCCCTTTCGGCTGCGC TGCGCTCACAAAACCTCACCAAGAGTACAGAGAACCACAGACTGCGTAGAAGCATTAAGAAGATCACCCAGGAGC TGAGTGACTTGCAGCAGGAGAGGGAGAGACTGGAGAAGGACCTGGAGGAAGCCCATCGAGAGAAGAGCAAAGGAG AAAATCGTTACAAGAGTCTTCTGAGTGAAAGCAATAAAAAATTGCACAATCAAGAGCAAGTGATCAAACATCTAA CAGAAAGTACCAATCAGAAGGACGTGTTGCTTCAGAAATTCAATGAAAAAGATTTGGAAGTAATACAGCAGAACT GCTATTTAATGGCTGCAGAGGATCTTGAGCTCAGGAGTGAAGGCTTAATAACAGAAAAGTGCTCTTCTCAACAGC CACCAGGCAGCAAAACCATCTTCTCTAAGGAAAAGAAACAATCATCAGACTATGAAGAGCTGATTCAGGTCTTAA AGAAAGAGCAGGACATCTATACCCATCTGGTCAAATCTCTGCAGGAATCAGACAGTATCAACAACCTGCAGGCTG AGTTAAACAAGATTTTTGCCCTGCGGAAGCAACTGGAGCAGGATGTGCTTTCATATCAGAATTTGCGGAAGACCT TGGAGGAGCAGATCAGCGAAATTCGGAGGCGGGAAGAAGAATCATTTTCACTTTATAGTGATCAAACATCTTATC TAAGTATTTGCCTTGAAGAAAACAATCGGTTTCAAGTGGAACATTTTTCTCAAGAAGAACTTAAGAAAAAGGTCA GTGACCTTATACAGCTAGTGAAGGAGCTGTATACAGACAACCAGCACCTGAAGAAAACCATTTTTGATCTCTCCT AGGACGAGGACACGATCAAAATTGGGGAGGATGACGAGATTAATTTCCTGAGTGACCAGCATTTGCAGCAGAGTA ATGAGATTATGAAAGACCTTTCCAAAGGAGGCTGCAAAAATGGATACTTAAGGCACACGGAGTCTAAGATTTCAG ATTGTGATGGGGCCCACGCACCTGGCTGCCTAGAAGAAGGTGCATTCATAAACCTGCTTGCCCCTTTGTTCAATG AGAAGGCCACATTATTACTGGAATCCAGGCCAGACCTTCTGAAAGTGGTACGGGAACTGCTTCTGGGACAACTAT TCTTGACAGAGCAGGAAGTTTCTGGAGAACACCTTGATGGTAAAACTGAGAAGACACCTAAGCAAAAAGGTGAAC TTGTACATTTTGTCCAAACCAACTCATTTTCCAAGCCACATGATGAACTGAAGTTGTCTTGTGAGGCCCAGCTAG TAAAGGCAGGCGAAGTGCCCAAGGTAGGACTGAAAGATGCCTCAGTGCAGACTGTGGCCACGGAGGGCGACCTGC TGAGATTCAAGCATGAAGCAACAAGAGAGGCTTGGGAAGAGAAACCGATCAACACTGCACTCAGCGCAGAGCATC GGCCAGAGAACCTGCACGGGGTGCCTGGGTGGCAGGCTGCCCTCCTTTCCCTCCTGGTATTACCAACAGAGAGG CTAAGAAGTCCCGCTTGCCAATCCTAATAAAACCATCCCGGTCATTAGGAAATATGTATCGTCTCCCTGCCACCC AGGAGGTGGTGACGCAGCTGCAGAGCCAGATCTTGGAGCTGCAGGGGGGAGCTGAAGGAGTTTAAAACTTGTAATA ATGCTCAGCCCCTGTGGGAGCAGCCTACCAGGACAGCCCAGGAGAGCAGAAAGGAATTAAAACCACATCTTCTG TCTGGAGAGACAAGGAAATGGACAGTGATCAGCAAAGAAGCTACGAGATTGACTCTGAGATTTGCCCACCTGATG ACCTTGCCAGCTTGCCATCATGCAAAGAAATCCTGAAGATGTTCTGAGCCCAACTTCAGTAGCTACTTACCTGA AGACAGAATACTTAAAACAGAAAATCCATGACTTGGAAACTGAGCTGGAAGGCTACCAGAATTTCATATTTCAGC TTCAAAAGCACTCCCAGTGCAGTGAGGCCATAATTACAGTTTTGTGTGGGACAGAAGGGGCCCAGGATGGCTTGA GCAAGCCCAAGAATGGTTCTGATGGGGAAGAAATGACCTTTTCAAGTTTGCACCAAGTGCGATACGTGAAACACG TGAAAATCCTCGGTCCGCTGGCCCCAGAGATGATTGACAGCAGGGTGCTGGAGAACCTCAAACAGCAGCTGGAGG AACAGGAATACAAGCTGCAGAAGGAGCAGAATTTGAACATGCAACTTTTCAGTGAGATCCATAATCTGCAGAATA AGTTCAGAGATCTCTCACCTCCCAGATACGATTCATTAGTTCAGTCCCAAGCCAGGGAGCTCTCCCTTCAACGGC AGCAGATTAAGGATGGCCATGGCATCTGTGTCATCTCCCGTCAACACATGAACACCATGATTAAGGCATTTGAGG AGTTGCTGCAGGCCAGTGATGTGGATTACTGTGTGGCCGAGGGTTTCCAGGAACAGCTGAATCAATGTGCTGAGC TGCTGGAGAAATTGGAAAAGCTATTTCTCAACGGAAAATCAGTTGGAGTGGAAATGAACACCCAGAATGAACTGA TGGAGAGGATTGAGGAAGACAACTTAACCTACCAACATCTTCTGCCTGAATCTCCTGAGCCTTCAGCCTCTCATG CGCTCTCTGATTATGAAACATCTGAAAAGTCCTTCTTCTCACGAGACCAGAAGCAAGATAATGAGACAGAAGAAGA CTTCAGTTATGGTGAACAGTTTTTCTCAAGACTTACTAATGGAACACATACAGGAAATTCGAACTTTGAGAAAGC GTTTAGAAGAATCTATTAAAACAAATGAGAAGCTACGGAAACAGTTGGAACGGCAAGGATCTGAATTTGTTCAAG GTTCTACAAGCATTTTTGCTTCTGGTTCAGAGCTTCATAGTTCTCTAACATCAGAAATTCATTTCTTGAGGAAGC AGAACCAGGCCCTCAATGCAATGCTCATTAAAGGATCCAGAGATAAACAGAAGGAGAATGACAAATTACGAGAGT 

### 2990/6881 FIGURE 2759B

TGAGCAGGGTGCAGGAGGTGAAGTTGAGGCAGCAGCTGCTCTCACAGAATGACAAGCTATTGCAGTCTCTCC GAGTGGAGCTGAAGGCGTATGAGAAGCTGGATGAAGAGCACAGGAGACTGAGAGAGGCGTCGGGAGAAGGCTGGA  ${\tt AGGGGCAGGATCCTTTCAGGGACCTGCACAGCCTCCTGATGGAGATCCAGGCTCTGCGCTTGCAACTAGAAAGGA}$ GAGCCCTCACTCTGGCTGTCCAAGCCGTGTCCATCCCTGAGGTGCCCCTTCAGCCTGACAAACACGATGGTGACA AATATCCCATGGAAAGTGATAATTCATTTGATCTGTTTGATTCCTCCCAGGCAGTGACACCAAAATCAGTTTCAG AGACTCCTCCACTCTCTGGGAATGACACGGACTCCCTCTCCTGCGACAGTGGCAGTTCGGCAACTAGCACTCCGT GTGTGTCCCGCCTGGTCACTGGCCACCTGTGGGCCAGCAAGAATGGCCGCCATGTCCTGGGCCTGATTGAGG ACTATGAGGCCCTGCTCAAACAGATCAGCCAGGGACAGAGGCTCCTTGCTGAAATGGACATTCAAACCCAAGAGG TGAGCACGGCCAAGCTGACCCTGGAAGAGGCCTACAGGCGGCTGAAGCTTCTCTGGAGAGTCTCACTCCCCGAGG ATGGCCAGTGCCCCTTCACTGTGAGCAGATTGGAGAAATGAAGGCAGAGGTCACCAAACTACATAAAAAATTGT TTGAACAAGAAAAGAAGTTGCAAAACACCATGAAGCTTTTGCAGCTGAGCAAGCGCCAGGAAAAAGTCATCTTTG ATCAATTGGTCGTAACCCACAAAATCCTTCGGAAGGCCAGAGGAAACCTGGAGCTTAGGCCTGGGGGAGCCCATC CAGGAACATGCAGTCCCAGCAGACCAGGCTCCTGAGAAGAACTTTCAGCCAATAAAGCTTGTGCTTCCCCCACCG  ${\tt GCGCCTTGGTGGGCTTCACGTCTTCCCCTGGATTTGCTTAGTACTCAGCCAGTGCCACAGTTTGAAGATTCTCAT}$ TAAATGATTCATTTCACCTTG

GGTGTGTGCGGAACATGGCGGAGCGCGGCAGGAAGCGGCCGTGCGGCCCGGGTGAACACGGCCAAAGGATTGAGT GGCAGCGGGCACAGGAGGAACAGGCAAAGCGCCTGGAAGAGGAGGAGGAGGCAGCGGCAGAGAAGGAGGACCGCGGGC GGCCCTACACACTGAGCGTAGCCCTGCCGGGCTCCATCCTGGACAATGCTCAGTCGCCGGAGCTTCGCACCTACT TGGCCGGTCAGATTGCCAGAGCCTGTGCCATCTTCTGTGTGGATGAGATCGTGGTGTTTGATGAGGAGGGCCAGG TGCAGTACCTGGAGTGTCCACAGTACCTGAGGAAGGCGTTCTTCCCCAAGCACCAGGATCTACAGTTTGCAGGGC TCCTGAACCCCCTGGACAGCCCCCACCACATGCGTCAGGATGAGGAATCCGAGTTCCGAGAGGGCATCGTGGTGG ATCGGCCCACCCGGCCAGGCCACGGCTCCTTTGTCAACTGTGGCATGAAAAAGGAGGTGAAGATTGACAAGAACC TGGAGCCCGGGCTTCGGGTGACTGTGCGACTGAACCAGCAGCAGCACCCAGACTGCAAGACCTACCATGGCAAAG TGGTATCATCGCAGGACCCTCGCACCAAAGCTGGTCTCTACTGGGGCTACACCGTCCGACTGGCTTCCTGCCTCA GTGCTGTGTTTGCTGAGGCCCCCTTCCAAGATGGGTATGACCTGACCATCGGGACGTCAGAGCGCGGCTCAGATG TGGCCTCTGCCCAGCTTCCCAACTTCAGGCATGCTCTTGTGGTGTTCGGGGGCCTCCAGGGTCTGGAAGCTGGAG CGGATGCTGACCCCAACCTGGAGGTGGCTGAACCCAGTGTCCTTTTGACCTGTACGTCAATACCTGTCCTGGCC AGGGTAGCCGTACCATCCGCACGGAGGAAGCCATCCTCATCTCCCTGGCCGCCCTGCAGCCTGGCCTCATCCAGG  $\tt CGGGTGCCCGGCACACCTGAAAGTTCTAAGGGGCCGAGGACATCAGTGAAGCAGCAGTGAAACCAGGGGCTCTGC$ AGGTCACTTGGGACGGACGCCACCAGACTTGTCTCC

GGCACGAGGCTGGGTTCCGAGGCCCAAGCCCTTGGCAGTGTTTGTGAGTGGAAGGGAGGTCACGCTATCGTCCGC AGGTCGCTCCCCGGCCATCCGGGCCTGCGGGCCTGACCCTGGCGTCGGGCGCGGGGCTGGGTGCGTCGT GGCGGCGGCAGCTGCCCCTGTGCCCGGGGGACCCCGGGCCGGGCGAGTTGGCCAAGTACGGGCTGCC GGTGGAGCAGCTGCGACCCGAGCGTCTCCGCGGCGACCGGCGACCGGCGAGTGCGACTTCCGCGAGGACGACTC GGTGCACGCGTACCACCGTGCCACCAACGCCGACTACCGCGGCAGTGGCTTCGACCGCGGTCACCTGGCCGCCGC CCTCAACCAGAATGCCTGGAACAACCTGGAGAAATATAGCCGCAGCTTGACCCGCAGCTACCAAAACGTCTATGT CTGCACAGGGCCACTCTTCCTGCCCAGGACAGAGGCTGATGGGAAATCCTACGTAAAGTACCAGGTCATCGGCAA GAACCACGTGGCAGTGCCCACACACTTCTTCAAGGTGCTGATCCTGGAGGCAGCAGGTGGGCAAATTGAGCTCCG CACCTACGTGATGCCCAACGCACCTGTGGATGAGGCCATCCCACTGGAGCGCTTCCTGGTGCCCATCGAGAGCAT  ${\tt CAGTAAG} \underline{{\tt TGA}} {\tt GGGTGGAGCCCAGTGAGACTGTGGGTGTGTGCAGGCCGGGGAGTATTAAAGGTGGTGATTTTTGG}$ AAAAAAA

MRALRAGLTLASGAGLGAVVEGWRRRREDARAALGLLGRLPVLPVAAAAELPPVPGGPRGPGELAKYGLPGLAQL KSRESYVLCYDPRTRGALWVVEQLRPERLRGDGDRRECDFREDDSVHAYHRATNADYRGSGFDRGHLAAAANHRW SQKAMDDTFYLSKVAPQVPHLNQNAWNNLEKYSRSLTRSYQNVYVCTGPLFLPRTEADGKSYVKYQVIGKNHVAV PTHFFKVLILEAAGGQIELRTYVMPNAPVDEAIPLERFLVPIESIERASGLLFVPNILARAGSLKAITAGSK

PCT/US2003/028547

### 2994/6881 FIGURE 2763

GCTGCTCCTGCCCCTCACCTTCCTGCTCCTGGTGCTGGGCTCCCTGCTGCTCTACCTCGCTGTTGTCACTCATGGA  ${\tt CCCTGGCTACGTGAATGTGCAGCCCCAGCCTCAGGAGGAGCTCAAAGAGGAGCAGACAGCCATGGTTCCTCCAGCCTGGGAGGAGCAGACAGCCAGGCAGGCCAGGCAGGCCAGGCAGGC$ GGTCTACCTGGCGCTGCAGCTGGTGGTGCTTCTGTGGGGCCTGTACCTGGCATGGTCAGGCCTCCGGTTCTTCCA GCCCTGGGGTCTGTGCGTCCAGCGGGCTCCTGTTCGCCACCTTCCTGCTGCTGCTCCTCTTCTCGTTGGT GGCCAGCCTGCTCCTCGCACCTCTACCTGGTGGCCAGCAACACCACCACCTGGGAATTCATCTCCTCACA  $\tt CCGCATCGCCTATCTCCGCCAGCGCCCCCAGCAACCCCTTCGACCGAGGCCTGACCCGCAACCTGGCCCACTTCTT$  $\tt CGGGCTCCACCCCAGCCCCGCCCAGGCTGCCAGTGCACACTTTTACAAATTTAATATAAAGCAAGTCCAGTC$ 

MAPWALLSPGVLVRTGHTVLTWGITLVLFLHDTELRQWEEQGELLLPLTFLLLVLGSLLLYLAVSLMDPGYVNVQ PQPQEELKEEQTAMVPPAIPLRRCRYCLVLQPLRARHCRECRRCVRRYDHHCPWMENCVGERNHPLFVVYLALQL VVLLWGLYLAWSGLRFFQPWGLWLRSSGLLFATFLLLSLFSLVASLLLVSHLYLVASNTTTWEFISSHRIAYLRQ RPSNPFDRGLTRNLAHFFCGWPSGSWETLWAEEEEEGSSPAV

CATGTCGGCGCCGGCGGCCAAAGTCAGTAAAAAGGAGCTCAACTCCAACCACGACGGGGCCGACGAGACCTCAGA TGAGGAGATTTTGAAAGTAGAACAGAAATATAACAAACTCCGCCAACCATTTTTTCAGAAGAGGTCAGAATTGAT CGCCAAAATCCCAAATTTTTGGGTAACAACATTTGTCAACCATCCACAAGTGTCTGCACTGCTTGGGGAGGAAGA TGAAGAGGCACTGCATTATTTGACCAGAGTTGAAGTGACAGAATTTGAAGATATTAAATCAGGTTACAGAATAGA TTTTTATTTTGATGAAAATCCTTACTTTGAAAATAAAGTTCTCTCCAAAGAATTTCATCTGAATGAGAGTGGTGA TCCATCTTCGAAGTCCACCGAAATCAAATGGAAATCTGGAAAGGATTTGACGAAACGTTCGAGTCAAACGCAGAA TAAAGCCAGCAGGAAGAGCCATGAGGAACCAGAGAGCTTCTTTACCTGGTTTACTGACCATTCTGATGCAGG TGCTGATGAGTTAGGAGAGGŢCATCAAAGATGATATTTGGCCAAACCCATTACAGTACTACTTGGTTCCCGATAT CAGTCTTTTTTTTTTTTTTTTTTTTCCCTCTTGTGCTCAGTCGCCCTGTTCTTGAGGTCTCTTTCTCTAC TCCATGGTTCTCAATTTATTTGGGGGGAAATACCTTGAGCAGAATACAATGGGAAAAGAGTCTCTACCCCTTTCT GTTCGAAGTTCATTTTTATCCCTTCCTGTCTGAACAAAAACTGTATGGAATCAACACCACCGAGCTCTGTGGGAA AAAAGAAAAACCTGCTCCCTTCGCTCTGCAAGCTGGAGGGTGCTAGGCCCCTGTGTAGTAGTAGAATT CTAGCTTTTTTCCTCCTTTCTCTGTATATTGGGCTCAGAGAGTACACTGTGTCTCTATGTGAATATGGACAGTTA GATGACTTGAGCCCTGCCACTCAATGGGAGAATCAGCAGAACCTGTAGGATCTTATTTGGAATTGACATTCTCTA TTGTAATTTTGTTCCTGTTTATTTTTAAATTTTCTTTTTGTTTCACTGGAAAGGAAAGATGATGCTCAGTTTTAA ACGTTAAAAGTGTACAAGTTGCTTTGTTACAATAAAACTAAATGTGTACACAAAGGATTTGATGCTTTTCTCTCA GCATAGGTATGCTTACTATGACCTTCCAAGTTTGACTTGTATAACATCACTGTCAAACTTTGTCACCCTAACTTC GTATTTTTTGATACGCACTTTGCAGGATGACCTCAGGGCTATGTGGATTGAGTAATGGGATTTGAATCAATGTAT TAATATCTCCATAGCTGGGAAACGTGGGTTCAATTTGCCATTGGTTTCTGAAAGTATTCACATCATTTGGGATAC CAGATAGCTCAATACTCTCTGAGTACATTGTGCCCTTGATTTTTATCTCCAAGTGGCAGTTTTTAAAATTGGCCT TTTACCTGGATATAAATTAATTGTGCCTGCCACCACCATCCAACAGACCTGGTGCTCTAATGCCAAGTTATACAC GGGACAGTTGCTGGCATGTCTTCATTGGCTATATAAAATGTGGCCAAGAAGATAGGCTCTCAGTAAGAAGTCTGA GACTCAGCTCTGTCTGCTCAATGCCATTGTGCAGAGAAGCACCCTAATGCATAAGCTTTTTAATGCTGTAAAATA TAGTCGCTGAAATTAAATGCCACTTTTTCAGAGGTGAATTAATGGACAGTCTGGTGAACTTCAAAAGCTTTTTGA TGTATAAAACTTGATAAATGGAACTATTCCATCAATAGGCAAAAGTGTAACAACCTATCTAGATGGATAGTATGT AATTTCTGCACAGGTCTCTGTTTAGTAAATACATCACTGTATACCGATCAGGAATCTTGCTCCAATAAAGGAACA TAAAGATTT

GGCGGCGTAGGGGCGGAGGTCGCGCCTGAGTGCGTCCGCACGAGAGGGCGGAACCGTCTCCATGGCAACCCGCGC GCAGCCGGGGCCACTCAGCCAGGCGGGAAGCGCTGGTGTTGCGGCGCTGGCGACAGTCGGGGTTGCGAGCGGCCC GGGGCCGGGGCCAGGGCCGCTGCAGGACGAGACCCTGGGTGTGGCGTCCGTGCCCTCGCAGTGGAGGGCCGT CCAGGGCATCCGCTGGGAGACGAAAAGTTGCCAGACGGCCAGCATTGCCACTGCCAGTGCATCCGCCCAGGCCAG GAATCATGTGGACGCCCAGGTGCAGACGGAGGCCCCCGTGCCTGTCAGCGTGCAGCCCCCGTCCCAGTATGACAT ACCCAGGCTCGCAGCCTTTCTTCGGAGAGTGGAGGCCATGGTCATCCGAGAGCTGAACAAGAATTGGCAGAGCCA CGCGTTTGATGGCTTCGAGGTGAACTGGACCGAGCAGCAGCAGCTGTGTCTTGTCTGTATACCCTGGGCTACCC GCCAGCCCAAGCGCAGGGTCTGCATGTGACCAGCATCTCCTGGAACTCCACTGGCTCTGTGGTGGCCTGTGCCTA  $\tt CGGCCGGCTGGACCATGGGGACCGGGAGCCCTTAAGTCCTTCGTGTGTGCCTGGAACCTGGACCGGCGAGACCT$  $\tt CTCCCACGTCGCAGGAGGGCTGTACAGTGGTGAGGTGTTGGTGTGGGACCTGAGCCGTCTTGAGGACCCGCTGCT$ GTGGCGCACAGGCCTGACGGATGACACCCACACAGACCCTGTGTCCCAGGTGGTGTGGCTGCCCGAGCCTGGGCA CAGCCACCGCTTCCAGGTGCTGAGTGTGGCCACCGACGGGAAGGTGCTACTCTGGCAGGGCATCGGGGTAGGCCA GCTGCAGCTCACAGAGGGCTTCGCCCTGGTCATGCAGCAGCTGCCACGGAGCACCAAGCTCAAGAAGCATCCCCG CGGGGAGACCGAGGTGGCCCACGGCAGTGGCCTTCTCCAGCTTTGACCCTAGGCTGTTCATTCTGGGCACGGA AGGCGGCTTCCCGCTCAAGTGTTCCCTGGCAGCTGGAGAGGCAGCCCTCACGCGGATGCCCAGCTCCGTGCCCCT GCGGGCCCCAGCACAGTTTACCTTCTCCCCCCACGGCGGTCCCATCTACTCTGTGAGCTGTTCCCCCTTCCACAG GCTGCAGCTCTCCCTCAAGTATCTGTTTGCTGTGCGCTGGTCCCCAGTGCGGCCCTTGGTTTTTGCAGCTGCCTC TGGGAAAGGTGACGTGCAGCTGTTTGATCTCCAGAAAAGCTCCCAGAAACCCACAGTTTTGATCAAGCAAACCCA CACAGTGAAGGTGTGGCAGCTGAGCACAGAGTTCACGGAACAAGGGCCCCGGGAAGCTGAGGACCTGGACTGCCT GGCAGCAGAGGTGGCGGCCTGAGGGGTCCCGGGAGGCGGGTGCAAGCCTTCGCTGTGCCGAGCCTTGTGTTTCTG ACGCAAGCCAAATGAAGAAAAGCAAAGCTT

ATCCTGCAGGAGTGGCTGGCGGCTGTGGGCGATGACTATGCTGCTGTGGTCTGGAGGCCTGAGGGCCGAGCCCAGG GCCCTCACCTTTGCCAGGAACTGGGGGGCCGACTATATCCTGTTTGCAGACACAACAACATTCTGACCAACAAT AACTTCTGGTGTGGGATCACCCCCAGGGCTACTACCGCCGCACAGCCGAGTACTTCCCCACCAAGAACCGCCAG GCTGCTGGGGTCTCCGTCCACGTGTGCAATGAGCACCGTTATGGGTACATGAATGTGCCGGTGAAATCCCACCAG GGGCTGGAAGACGAGAGGGTCAACTTCATCCACCTGATCTTGGAAGCACTAGTGGACGGCCCCCGCATGCAGGCC TCAGCTCATGTGACTCGGCCCTCTAAGAGGCCCAGCAAGATAGGGTTTGACGAGGTCTTTGTCATCAGCCTGGCT GTGGATGCTGGATGGCTCAACAGCAGTGCCATCAGGAACCTCGGCGTAGACCTGCTCCCGGGCTACCAGGACCCT TACTCGGGCCGCACTCTGACCAAGGGCGAGGTGGGCTGCTTCCTCAGCCATTACTCCATCTGGGAAGAGGTGGTT GCCAGGGGCCTGGCCCGGGTCCTGGTGTTTGAGGATGACGTGCGCTTTGAGAGCAACTTCAGGGGGGCGGCTGGAG  $\tt CGGCTGATGGAGGATGTGGAGGCAGAGAAACTGTCTTGGGACCTGATCTACCTTGGACGGAAACAGGTGAACCCT$ GAGAAGGAGACGGCCGTGGAGGGGCTGCCGGGCCTGGTGGTGGCTGGGTACTCCTACTGGACGCTGGCCTATGCC CTGCGTCTGGCGGGTGCCCGCAAGCTGCTGGCCTCACAGCCTCTGCGCCGCATGCTGCCCGTGGACGAGTTCCTG GCCCAGCCCCTGCTCGCTGCCCCTACCCACTATGCCGGGGACGCCGAGTGGCTCAGTGACACGGAGACATCCTCT  $\mathtt{CTGACTGGCAGCAGCGGGCACAGCCTCCAACCCCAGCCCCGAGATGAGCTC}$ 

MLQEWLAAVGDDYAAVVWRPEGEPRFYPDEEGPKHWTKERHQFLMELKQEALTFARNWGADYILFADTDNILTNN QTLRLLMGQGLPVVAPMLDSQTYYSNFWCGITPQGYYRRTAEYFPTKNRQRRGCFRVPMVHSTFLASLRAEGADQ LAFYPPHPNYTWPFDDIIVFAYACQAAGVSVHVCNEHRYGYMNVPVKSHQGLEDERVNFIHLILEALVDGPRMQA SAHVTRPSKRPSKIGFDEVFVISLARRPDRRERMLASLWEMEISGRVVDAVDAGWLNSSAIRNLGVDLLPGYQDP YSGRTLTKGEVGCFLSHYSIWEEVVARGLARVLVFEDDVRFESNFRGRLERLMEDVEAEKLSWDLIYLGRKQVNP EKETAVEGLPGLVVAGYSYWTLAYALRLAGARKLLASQPLRRMLPVDEFLPIMFDQHPNEQYKAHFWPRDLVAFS AQPLLAAPTHYAGDAEWLSDTETSSPWDDDSGRLISWSGSQKTLRSPRLDLTGSSGHSLQPQPRDEL

#### 3000/6881 FIGURE 2769

 ${\tt GCGAGCTCGGCTTCCTCAAC} \underline{{\tt ATG}} {\tt GCTGCGCCCTTGTCAGTGGAGGTGGAGGTGGGAGGTGGGAGCTCCTGT}$ TTGACGGTATTAAGAAACATCGAGTCACTTTGCCTGGACAGGAGGAACCCTGGGACATCCGGAACCTGCTCATCT GGATCAAGAAGAATTTGCTAAAAGAGCGGCCAGAGTTGTTCATCCAGGGAGACAGCGTGCGGCCAGGAATTCTGG TGCTGATTAACGATGCCGACTGGGAGCTACTGGGTGAGCTGGACTACCAGCTTCAGGACCAGGACAGCGTCCTCT  $\texttt{TCATCTCCACTCTGCACGGCGGC} \underline{\textbf{TGA}} \texttt{GGGCCCTTCTCTGGGCCTGGGCACCCTTAGAGGGGGAGAACGAAGCAATC}$ AGACATCCCCTTGGGCCCTGCTTCCAGGTCTCCCTGTCCCCTTGCCTTCTTCCCTGCTCTGTCCCCTAAG  $\verb|CTCCCTCCAGGCAGGGAAAAGAGGCCAGGTGCTAAAAATGAGCCTTTCTCAAGCACGTGAGCAGCGGAAGGCAGA$  ${\tt CAGGCGCCAGAGCCCAGCACTCCCTTTTCCAGCAGCTGTGGTGGGGGAGGGTTCCCCTCCAGTTTGTCAAGAGTT}$ GAAGGAGGCTCTGTGGCCAGGTGACCTGGCTGCCTTCCACTCCTTGTACCTCAGTCTAAACATGGAGTGGCCGCT ACTGCTATCAGTATGGAACCCCAGCTGGGGTCCCCTATTGAGTGCCGACTCCCCCACCGCCAGCAGCTGCTCCT TTAAACCTTGGACTAGCAAGTAGAAGCCTGGGGGGATGCGTGTGCCTCAGTTTCCTCCTCCACAACTGAATATAG TGGCTGAAAACTGGGGAGATACTTGATGGCGCGAATGTCCGTTTTCTCTCCCTTCCCACCTCCTGCAGGAAGCAG GACGGGGCAGCACCTGGTAGGCACAGTGCTTTGCCCCTCCCCTTCCCTTCTGGAAGTCTTGGGGCCTC AGTGCTTGCAACAGCCGGCCTTGGGCAAATAAAAGACTAGGTTGTTTACT

 ${\tt MAAPLSVEVEFGGGAELLFDGIKKHRVTLPGQEEPWDIRNLLIWIKKNLLKERPELFIQGDSVRPGILVLINDAD} \\ {\tt WELLGELDYQLQDQDSVLFISTLHGG}$ 

TTGCAGCAGCAGCAGTTACTGCAGCTCCAGCAGCTGCTCCAGCAGTCCCCACCACAGGCCCCGTTGCCCATGGCT GCCACGTATGACACTGCCGGTCTCACCATGCCCACAGCAACACTGGGTAACCTCCGAGGCTATGGCATGGCATCC ACTCGCCAGTCCTTGCTGGGACCTCCTCTGTTGGGGTCCCCATGAACCCTTCCCAGTTCAACCTTTCAGGACGG AACCCCCAGAAACAGGCCCGGACCTCCTCTCTCCCCCCCAATCGAAAGGATTCTTCTCTCAGACAATGCCT GTGGAAGACAAGTCAGACCCCCCAGAGGGGTCTGAGGAAGCCGCAGAGCCCCGGATGGACACACCAGAAGACCAA GATTTACCGCCCTGCCCAGAGGACATCGCCAAGGAAAAACGCACTCCAGCACCTGAGCCTGAGCCTTGTGAGGCG TCCGAGCTGCCAGCAAAGAGATTGAGGAGCTCAGAAGAGCCCCACAGAGAAGGAACCTCCAGGGCAGTTACAGGTG AAGGCCCAGCCGCAGGCCCGGATGACAGTACCGAAACAGACACAGACACCAGACCTGCTGCCTGAGGCCCTGGAA GCCCAAGTGCTGCCACGATTCCAGCCACGGTCCTGCAGGTCCAGGCCCAGGTGCAGTCACAGACTCAGCCGCGG ATACCATCCACAGACACCCAGGTGCAGCCAAAGCTGCAGAAGCAGGCGCAAACACAGACCTCTCCAGAGCACTTA GTGCTGCAACAGAAGCAGGTGCAGCCACAGCTGCAGCAGGAGGCAGAGCCACAGAAGCAGGTGCAGCCACAGGTA CAGCCACAGGCACATTCACAGGGCCCAAGGCAGGTGCAGCTGCAGCAGGAGGCAGAGCCGCTGAAGCAGGTGCAG CCACAGGTGCAGCCCCAGGCACATTCACAGCCCCCAAGGCAGGTGCAGCTGCAGCTGCAGAAGCAGGTCCAGACA CAGACATATCCACAGGTCCACACACAGGCACAGCCAAGCGTCCAGCCACAGGAGCATCCTCCAGCGCAGGTGTCA GTACAGCCACCAGAGCAGACCCATGAGCAGCCTCACACCCAGCCGCAGGTGTCGTTGCTGGCTCCAGAGCAAACA CCAGTTGTGGTTCATGTCTGCGGGCTGGAGATGCCACCTGATGCAGTAGAAGCTGGTGGAGGCATGGAAAAGACC TTGCCAGAGCCTGTGGGCACCCAAGTCAGCATGGAAGAGATTCAGAATGAGTCGGCCTGTGGCCTAGATGTGGGA GAATGTGAAAACAGAGCGAGAGAGATGCCAGGGGTATGGGGCGCCGGGGGCTCCCTGAAGGTCACCATTCTGCAG AGCAGTGACAGCCGGGCCTTTAGCACTGTACCCCTGACACCTGTCCCCCGCCCCAGTGACTCCTCCTCCACCC CCTGCGGCTACCAGCACTCCCTCTAAGCAGGCCCTCCAGTTCTTCTGCTACATCTGCAAGGCCAGCTGCTCCAGC CAGCAGGAGTTCCAGGACCACATGTCGGAGCCTCAGCACCAGCAGCGGCTAGGGGAGATCCAGCACATGAGCCAA GCCTGCCTCCTGCCCCGTGCCCCGGGACGTCCTGGAGACAGAGGATGAGGAGCCTCCACCAAGGCGC TGGTGCAACACCTGCCAGCTCTACTACATGGGGGACCTGATCCAACACGCAGGACACAGGACCACAAGATTGCC AAACAATCCTTGCGACCCTTCTGCACCGTTTGCAACCGCTACTTCAAAACCCCTCGCAAGTTTGTGGAGCACGTG CACTTCATTACAGTGGACGCTGTGGGTTGCTTCGAGGGTGATGAAGAAGAAGAAGAAGAAGATGATGAAGAA GAGACCTACAGCCCCAATACTGCATATGGTGTGGACTTCCTGGTGCCCGTGATGGGCTATATCTGCCGCATCTGC CACAAGTTCTATCACAGCAACTCAGGGGCACAGCTCTCCCACTGCAAGTCCCTGGGCCACTTTGAGAACCTGCAG AAATACAAGGCGGCCAAGAACCCCAGCCCACCACCGACCTGTGAGCCGCCGGTGCGCAATCAACGCCCGGAAC GTGACGGCTCGACCCTCCAGCCCCACTACCTCGGCGCTCAACCCGCCTCAAAACCTGATAGAGGGACCTCCCT GTCCCTGGCCTGGGTCCAGATCTGCTAATGCTTTTTAGGAGTCTGCCTGGAAACTTTGACATGGTTCATGT TTTTACTCAAAATCCAATAAAACAAGGTAGTTTGGCTG

GGCACGAGGGGCGGCGTTTCGAACTTGGGCGCCGGGCACACGCCCAGTCCCGAGAGCGCTGAGGGTTCCCTTAG  $\tt CGTCGCCCTCACCCCGGCCAACCCGCGGGGCGCCAGAGTCCTGGCCCTTTAAACGCCGCGCGTGCCTCGGCGTCT$ GCGCTGGCCCTGGGGGAGCCCTGGGGCTGTACCACACGGCGCGGTGGCACCTGCGCGCCCAGGACCTCCACGCA GAGCGCTCAGCCGCGCAGCTCTCCCTGTCCAGCCGCCTGCAGCTGACCCTGTACCAGTACAAGACGTGTCCCTTC TGCAGCAAGGTCCGAGCCTTCCTCGACTTCCATGCCCTGCCCTACCAGGTGGTGGAGGTGAACCCTGTGCGCAGG TACTACCCAGCCATGAAGGCTGTGAACGAGCAGGGCAAGGAGGTGACCGAGTTCGGCAATAAGTACTGGCTCATG  $\verb|CTCAACGAGAAGGAGGCCCAGCAAGTGTATGGTGGGAAGGAGGCCAGGACGGAGGAGATGAAGTGGCGGCAGTGG|\\$ GCGGACGACTGGCTGGTGCACCTGATCTCCCCCAATGTGTACCGCACGCCCACCGAGGCTCTGGCCGTCCTTTGAC TACATTGTCCGCGAGGGCAAGTTCGGAGCCGTGGAGGGTGCCGTGGCCAAGTACATGGGTGCAGCGGCCATGTAC CTCATCAGCAAGCGACTCAAGAGCAGGCACCGCCTCCAGGACAACGTGCGCGAGGACCTCTATGAGGCTGCTGAC AAGTGGGTGGCTGTGGGCAAGGACCGGCCCTTCATGGGGGGCCCAGAAGCCGAATCTCGCTGATTTGGCGGTG TATGGCGTGCTGCTGTGATGGAGGGGCTGGATGCATTCGATGACCTGATGCAGCACACCCCAGCCCCTGG CAGCGGAAGACGCCAGCTGCCAGGGCCTGGGGCCACTGGGCCAGCGCCTGGCGATACTGGTTGGGGGCAGGATCA TTCTGCCCCTTGTCCACGCACCCCCACCAGCCCTCTCGCTTCTAACACAGGGCACCTGCTGGGGCTCAGGGATGT TGTTTTCAGTGGAATCCCATCCCTGGGTTCCCCTGGTTCCCCAAGCCTCCCGGGACTGGGACATGTT **ААААААААААААААААААААААААААААА** 

MDPAARVVRALWPGGCALAWRLGGRPQPLLPTQSRAGFAGAAGGPSPVAAARKGSPRLLGAAALALGGALGLYHT ARWHLRAQDLHAERSAAQLSLSSRLQLTLYQYKTCPFCSKVRAFLDFHALPYQVVEVNPVRRAEIKFSSYRKVPI LVAQEGESSQQLNDSSVIISALKTYLVSGQPLEEIITYYPAMKAVNEQGKEVTEFGNKYWLMLNEKEAQQVYGGK EARTEEMKWRQWADDWLVHLISPNVYRTPTEALASFDYIVREGKFGAVEGAVAKYMGAAAMYLISKRLKSRHRLQ DNVREDLYEAADKWVAAVGKDRPFMGGQKPNLADLAVYGVLRVMEGLDAFDDLMQHTHIQPWYLRVERAITEASP AH

CCCAGCCCTGGAGACAGCCCCCTAGACTACTGAGGGACAGCAGCATGAAGGCTCCGGGTCGGCTCGTGCT  ${\tt CATCATCCTGTGCTCCTGTGCTCTCTCTCTCCTGTGCTGCTGCCGGCCTGCCCCTCTGCCT}$ GGCCACCTGCCTGGACCACCACTTCCCCACAGGCTCCAGGCCCACTGTGCCGGGACCCCTGCACTTCAGTGGATA TAGCAGTGTGCCAGATGGGAAGCCGCTGGTCCGCGAGCCCTGCCGCAGCTGTGCCGTGGTGTCCAGCTCCGGCCA AATGCTGGGCTCAGGCCTGGGTGCTGAGATCGACAGTGCCGAGTGCGTGTTCCGCATGAACCAGGCGCCCCACCGT GGTGCTCGGCGGCCGCACCTACCGCACGCTGCTGCAGCTCACCAGGATGTACCCCGGCCTGCAGGTGTACACCTT CACGGAGCGCATGATGGCCTACTGCGACCAGATCTTCCAGGACGAGGCCAAGAACCGGAGGCAGTCGGGCTC CTTCCTCAGCACCGGCTGGTTCACCATGATCCTCGCGCTGGAGCTGTGTGAGGAGATCGTGGTCTATGGGATGGT GTGTCAGATGTACCTGGCACACGAGCAGGCGCCCCGAAGCGCCCACCGCTTCATCACTGAGAAGGCGGTCTTCTC  $\verb|CCGCTGGGCCAAGAAGAGGCCCATCGTGTTCGCCCATCCGTCCTGGAGGACTGAGTAGCTTCCGTCGTCCTGCCA|\\$ GTCGCCATGCCGTTGCGAGGCCTCCGGGATGTCCCATCCCAAGCCATCACACTCCACAAAAACATTTAATTTATG GCTCACCCCACCTCCAGGTCTGTCAAGTGGCCTTTGTCCC

GCGCGGCATAACGACCCAGGTCGCGGCGGGGGGGGGTGAGCGGTGGCCGGAGCCGAGCATGGA GTACCAGGATGCCGTGCGCATGCTCAATACCCTGCAGACCAATGCCGGCTACCTGGAGCAGGTGAAGCGCCAGCG GGGTGACCCTCAGACACAGTTGGAAGCCATGGAACTGTACCTGGCACGGAGTGGGCTGCAGGTGGAGGACTTGGA CCGGCTGAACATCATCCACGTCACTGGGACGAAGGGGAAGGGCTCCACCTGTGCCTTCACGGAATGTATCCTCCG AAGCTATGGCCTGAAGACGGGATTCTTTAGCTCTCCCCACCTGGTGCAGGTTCGGGAGCGGATCCGCATCAATGG GCAGCCCATCAGTCCTGAGCTCTTCACCAAGTACTTCTGGCGCCTCTACCACCGGCTGGAGGAGACCAAGGATGG CAGCTGTGTCTCCATGCCCCCCTACTTCCGCTTCCTGACACTCATGGCCTTCCACGTCTTCCTCCAAGAGAAGGT GGACCTGGCAGTGGTGGAGGTGGGCATTGGCGGGGCTTATGACTGCACCAACATCATCAGGAAGCCTGTGGTGTG CGGAGTCTCCTCTTGGCATCGACCACCACCACCTCCTGGGGGATACGGTGGAGAAGATCGCATGGCAGAAAGG GGGCATCTTTAAGCAAGGTGTCCCTGCCTTCACTGTGCTCCAACCTGAAGGTCCCCTGGCAGTGCTGAGGGACCG AGCCCAGCAGATCTCATGTCCTCTATACCTGTGTCCGATGCTGGAGGCCCTCGAGGAAGGGGGGCCGCCGCTGAC GCAGGACCGCCATGGTGCTGGGGAGCCAAAGGCATCCAGGCCAGGGCTCCTGTGGCAGCTGCCCCTGGCACCTGT GTTCCAGCCCACATCCCACATGCGGCTTCGGGACACGGAGTGGCCGGGCCGGACGCAGGTGCTGCGGCG GGCGCTGCAGGGCCGAGAGGCCGAGCGGTGGCCCCGAGGTTCGAGTCTTGCTCTTCAATGCTACCGGGGACCG GGACCCGGCGCCCTGCTGAAGCTGCTGCAGCCCTGCCAGTTTGACTATGCCGTCTTCTGCCCTAACCTGACAGA GGTGTCATCCACAGGCAACGCAGACCAACAGAACTTCACAGTGACACTGGACCAGGTCCTGCTCCGCTGCCTGGA ACACCAGCACTGGAACCACCTGGACGAAGAGCAGGCCAGCCCGGACCTCTGGAGTGCCCCCAGCCCAGAGCC CATTTCACATGCCTTGCAATGGATCAGCCAAGGCCGAGACCCCATCTTCCAGCCACCTAGTCCCCCAAAGGGCCT CAGCCTGCACCTGGTGGTGTCCTGAAGCTGCTGGAGCCCGCACTGTCCCAGTAGCCAAGGCCCGGGGTTGG AGGTGGGAGCTTCCCACACCTGCCTGCGTTCTCCCCATGAACTTACATACTAGGTGCCTTTTGTTTTTGGCTTTC CTGGTTCTGTCTAGACTGGCCTAGGGGCCAGGGCTTTGGGATGGGAGGCCCGGGAGAGGATGTCTTTTTAAGGCT CTGTGCCTTGGTCTCCTCCTCTTGGCTGAGATAGCAGAGGGGCTCCCCGGGTCTCTCACTGTTGCAGTGGCC TGGCCGTTCAGCCTGTCTCCCCCAACACCCCGCCTGCCTCCTGGCTCAGGCCCAGCTTATTGTGTGCGCTGCCTG GCCAGGCCCTGGGTCTTGCCATGTGCTGGGTAGATTTCCTCCTCCCAGTGCCTTCTGGGAAGGGAGAGGGCC TCTGCCTGGGACACTGCGGGACAGAGGGTGGCTGGAGTGAATTAAAGCCTTTGTTTTT

MSRARSHLRAALFLAAASARGITTQVAARRGLSAWPVPQEPSMEYQDAVRMLNTLQTNAGYLEQVKRQRGDPQTQ LEAMELYLARSGLQVEDLDRLNIIHVTGTKGKGSTCAFTECILRSYGLKTGFFRFGSGSASMGSPSVLSSSPSTS GASTTGWRRPRMAAVSPCPPTSAS

CCGCGGCCGCCTGGGACCTGGCTTCCCTGCGCTGCACCTTGGGCGCCCTTTTGCGAATGCGACTTCCGGCCCG CGCTGAAGGCCTTTGTGCGGGACCCAGCCCCACCAAGCCGCTGGTCCTCTCCCTGCACGGCTGGACCGGCACCG GCAAATCCTATGTCAGCTCCCTGCTGGCGCACTACCTCTTCCAGGGCGGCCTCCGCAGCCCCCGCGTGCACCACT TTTCTCCCGTCCTCCACTTCCCCCACCCCAGCCACATCGAGCGCTACAAGAAGGATCTGAAGAGCTGGGTCCAAG GGAACCTCACTGCCTGTGGCCGCTCCCTCTTCCTCTTCGATGAGATGGACAAGATGCCCCCAGGCCTGATGGAAG TCCTGCGGCCTTTCCTGGGCTCCTCCTGGGTGGTATACGGGACCAATTACCGCAAAGCCATCTTCATCTATCA GGTGGGGCCCGGCTTTGCAGTGGGCACAGTGGGGGGGCCCACTTCTCAGAGGTTCAGCTCTACAGCCTTAGCCTGT GCTCCCAGCAGAATCCAGTTCCCCATGGGCTTAGCTGGGCTTTCCCAGTGCCCTCCGCCACTCTCAGAGATGACA TTGTCATTCCGCCTGGTTGATTTCCCTTTGGACATTCTCAGCAAATTCTGGGCTCAGTCTTTTTGATCGCCACTT CTTTGTGGAAGCCCTGCCAGGTCAAGAAGTTTTCCCTCTTTTGTGGTGAGGAGGACACAGGCCTGGGAAAAATAG GAACAGAGTTCTTGTCCTTTAGTCCCAGCTCTCAGAATCCTCGCTGTGTTTCCTCAGGCAGCATGGCTCCGCCTC TCTGAGCCTCTGTCTCTGCATCTGAACAGCGGGGCCCAATAATGATGCCCCGATGCCTTCCTGGAAGTTCAGTGAG GGAAAGTCAGTTGAGGGACACAAAAGTGTTTTGTAAACTATAAAGTACGTGGCATGTGTAGGTGAATTACAGGGG CCATGGATGTGGACACCATGGAGGGGAAGTGGAGCGTTTTCAGTGGAGTTGGCTCCTCCCCGCACTGAGCCATG TTCCTATGTCAGGTGGCAGCGGGAAGCGAGGGTCCAATCCTGCCCTGCGCTAGTCCTGAGTCTCAGCCT AGTCTGGCTCAGCAGCCCCCTCCCGGGCAGCTTCACCCCACACCCAGGGGCCAGGCTCTCCCGGGGTCTCATGCT TTGCCCACTGACCCGGCAGTTCTGAGCCTGGCTTTGGCACTCCCAGCTTTGTGACTTTGGGTGAGCCTTACAGCC CCTGAGTCCTACACCCAGAAGGCGGCTGAGGGGAACTGAGGCCAGCATTTTTCCTCCTGCCCCTGGGGGTTTGGGG CCGGCTTCTCCCCTCTTGTGAAGCACAAAGTCCCCTCCCCACCTACCCTTCCTGCAGATGGCTTCTCAAACTCGG GCATCATGGAAGAGCGCCTCCTAGACGCAGTGGTGCCCTTCCTCCCGCTCCAGCGGCACCACGTCCGGCACTGCG TGCTCAACGAGCTGGCCCAGCTGGGCCTGGAGCCAAGGGATGAGGTTGTCCAGGCTGTGCTGGACAGCACCACCT TCTTCCCTGAAGACGAGCAGCTCTTCTCCTCCAACGGCTGCAAGACCGTGGCCTCCCGAATCGCCTTCTTCCTCT GACTCTCTGAGTGGTGTCCTCGGCCCCCTGATGGCCAGGCCATGCAGGAAAGGCCAGGGGGCCTCTGTCACAGGA ACCCAGAGCACCAAGTGAGATGAACGGAGTGTCGGCTAGGCCACGGGACAGATGGCCAGGAAGGGCCCTGGCCTC TAAACTGGCTCGAGAGCATCTTGGCCCCGGCCACCTTCCCCAGGGAAACCCCTGGTCACCCCAGAACCTCACTGA GCCTTGACCTCCCCTGCAGCCTGAGCCTTCTTACTGTGAATTATAACTCAGGGACTGTGGCTCGTGGCGGTGCT CCCTCCTCAGTCTGCCACCCTTGCCCCTTGCCTCCTTGGTCGGGCACCATACCTCCTCCCCTCCACCCCACACCC TGTGTCCATATCAAGCCAGGTGGAGCCTTCTCAGTTTCCAGAAATGGAGGGACTCAAGCTGCCACTTGGGCCTGG TTTTAGATGTTTTTAATTTTGTAAAAGAAAACAAGTATAATAAACTCAGCTGTGGGACCAG

## 3009/6881 FIGURE 2778A

CCATGGGGGACGTGCTGCACGCACCTGGACGACGCCCGGCGCCACATCGCAGAAAAAACCGGGAAGATCC TGACGGAGTTCCTCCAGTTCTATGAAGACCAGTATGGCGTGGCTCTCTTCAACAGCATGCGCCATGAGATTGAGG GCACGGGGCTGCCGCAGGCCCAGCTGCTCTGGCGCAAGGTGCCACTGGACGAGCGCATCGTCTTCTCGGGGAACC TCTACGAAAACAAAGCGGCCTATGAGCGGCAGGTCCCACCACGAGCCGTCATCAACAGTGCAGGCTACAAAATCC TCACGTCCGTGGACCAATACCTGGAGCTCATTGGCAACTCCTTACCAGGGACCACGGCAAAGTCGGGCAGTGCCC CCATCCTCAAGTGCCCCACACAGTTCCCGCTCATCCTCTGGCATCCTTATGCGCGTCACTACTACTTCTGCATGA TGACAGAAGCCGAGCAGGACAAGTGGCAGGCTGTGCTGCAGGACTGCATCCGGCACTGCAACAATGGAATCCCTG AGGACTCCAAGGTAGAGGGCCCTGCGTTCACAGATGCCATCCGCATGTACCGACAGTCCAAGGAGCTGTACGGCA CCTGGGAGATGCTGTGTGGGAACGAGGTGCAGATCCTGAGCAACCTGGTGATGGAGGAGCTGGGCCCTGAGCTGA AGGCAGAGCTCGGCCCGCGGCTGAAGGGGAAACCGCAGGAGCGGCAGCGGCAGTGGATCCAGATCTCGGACGCCG TGTACCACATGGTGTACGAGCAGGCCAAGGCGCGCTTCGAGGAGGTGCTGTCCAAGGTGCAGCAGGTGCAGCCGG CCATGCAGGCCGTCATCCGAACTGACATGGACCAAATTATCACCTCCAAGGAGCACCTTGCCAGCAAGATCCGAG TGATGGTCCCCACCAGCCAGGGCTTCACTGAGGTGCGAGATGTCTTCTTCAAGGAGGTCACGGACATGAACCTGA ACGTCATCAACGAGGGCGCATTGACAAGCTGGGCGAGTACATGGAGAAGCTGTCCCGGCTGGCGTACCACCCCC TGAAGATGCAGAGCTGCTATGAGAAGATGGAGTCGCTGCGACTGGACGGGCTGCAGCAGCGATTTGATGTGTCCA GCACGTCCGTGTTCAAGCAGCCGAGCCCAGATCCACATGCGGGAGCAAATGGACAATGCCGTGTATACGTTCGAGA GGGTGCTGAAGAAATACGACTACGACAGCAGCTCTGTGCGGAAGAGGTTCTTCCGGGAAGGCGCTGCTGCAGATCA GCATCCCGTTCCTGCTCAAGAAGCTGGCCCCTACCTGCAAGTCGGAGCTGCCCCGGTTCCAGGAGCTGATCTTCG AGGACTTTGCCAGGTTCATCCTGGTGGAAAACACGTACGAGGGGGTGCTGCAGACCGTCATGAAGGACATCC TGCAGGCTGTGAAGGAGGCCGCGGTGCAGAGGAAGCACAACCTCTACCGGGACAGCATGGTCATGCACAACAGCG ACCCCAACCTGCACCTGCTGGCCGAGGGCGCCCCCATCGACTGGGGCGAGGAGTACAGCAACAGCGGCGGGGGGCG GCAGCCCCAGCCCCAGCACCCCGGAGTCAGCCACCCTCTCGGAAAAGCGACGGCGCCCAAGCAGGTGGTCTCTG TGGTCCAGGATGAGGAGGTGGGGCTGCCCTTTGAGGCTAGCCCTGAGTCACCACCACCTGCGTCCCCGGACGGTG TCACTGAGATCCGAGGCCTGCTGGCCCAAGGTCTGCGGCCTGAGAGCCCCCCACCAGCCGGCCCCTGCTCAACG ATCTCCTGCCTGGAAAGGCTGTGGACCTTGGGCCCCCCAAGCCCAGCGACCAGGAGACTGGAGAGCAGGTGTCCA TGGTCTGTGCCTTGTGGGTGGAGGCGGGCCAGGGCTGTGTGGCACCGCCAGGGAGCGGGCCCACCTGAGTCACTT TATTGGGTTCAGTCAACACTTTCTTGCTCCCTGTTTTCTCTTCTGTGGGATGATCTCAGATGCAGGGGCTGGTTT GAAATGAGAAAGGCCCAGAACGTGCAGGTCTGCGGAGGGGAAGTGTCCTGAGTGAAGGAGGGGACCCCCATCCTG TCCCCTTCTCCCGGCCCCAGCCTGCCTCCTCCTGCCCGCCTGGCCCACAGGTCTCCCTCTGGTCCCTCTCCTCCTC TGGTGGTTGGGGATGGAGCGCAGCAAGGGGTGTAATGGGGCTGGGTTCTGTCTTCTACAGGCCACCCCGAGGTC  ${\tt CCTTGTGAGTCACTCTGGGCCTGGCTGTCGTCCCTCAGCTTCTTGTTCCTGGGACAAGGGTCAAGCCAGGAT}$ GGGCCCAGGCCTGGGATCCCCCACCCCAGGACCCCCAGGCCCCTCCCCTGCTGCTTTGCGGGGGGCAGGCCAGA AATGGACTCCTTTTGGGTCCCCGAGGTGGGGTCCCCTCCCAGCCCTGCATCCTCCGTGCCCTAGACCTGCTCCCC

# 3010/6881 FIGURE 2778B

 $\label{eq:condition} \textbf{AGAGGAGGGCCTTGACCCACAGGACGTGTGGTGGCGCCTTGGCACCCCAGCTCCCGCAGCCCTGGTCTTGGCGCATCTCTTCCCCTCTTGTCCCGAAGATCTGCCCTCTAGTGCCTTTTGAGGGGTTCCCATCATCCCTCCTGATATTGTATTGAAAATATTATTGCACACTGTTCATGCTTCTACTAATCAATAAACGCTTTATTT$ 

MGDVLSTHLDDARRQHIAEKTGKILTEFLQFYEDQYGVALFNSMRHEIEGTGLPQAQLLWRKVPLDERIVFSGNL FQHQEDSKKWRNRFSLVPHNYGLVLYENKAAYERQVPPRAVINSAGYKILTSVDQYLELIGNSLPGTTAKSGSAP ILKCPTQFPLILWHPYARHYYFCMMTEAEQDKWQAVLQDCIRHCNNGIPEDSKVEGPAFTDAIRMYRQSKELYGT WEMLCGNEVQILSNLVMEELGPELKAELGPRLKGKPQERQRQWIQISDAVYHMVYEQAKARFEEVLSKVQQVQPA MQAVIRTDMDQIITSKEHLASKIRAFILPKAEVCVRNHVQPYIPSILEALMVPTSQGFTEVRDVFFKEVTDMNLN VINEGGIDKLGEYMEKLSRLAYHPLKMQSCYEKMESLRLDGLQQRFDVSSTSVFKQRAQIHMREQMDNAVYTFET LLHQELGKGPTKEELCKSIQRVLERVLKKYDYDSSSVRKRFFREALLQISIPFLLKKLAPTCKSELPRFQELIFE DFARFILVENTYEEVVLQTVMKDILQAVKEAAVQRKHNLYRDSMVMHNSDPNLHLLAEĞAPIDWGEEYSNSGGG SPSPSTPESATLSEKRRRAKQVVSVVQDEEVGLPFEASPESPPPASPDGVTEIRGLLAQGLRPESPPPAGPLLNG APAGESPQPKAAPEASSPPASPLQHLLPGKAVDLGPPKPSDQETGEQVSSPSSHPALHTTTEDSAGVQTEF

 $\label{thm:mppkfdpneikvvylrctggevgatsalapkigplglspkkvgddiakatgdwkglritvkltiqnrqaqievvps asaliikalkepprdrkkqknikhsgnitfdeivniarqmrhrslarelsgtikeilgtaqsvgcnvdgrhphdiiddinsgavecpas$ 

GCTGTTGCAGGCCAGGAGGACGGTTTTGAGGGCACTGAGGAGGGCTCGCCAAGAGAGTTCATTTACCTAAACAGG TACAAGCGGGCGGGCGAGTCCCAGGACAAGTGCACCTACACCTTCATTGTGCCCCAGCAGCGGGTCACGGGTGCC ATCTGCGTCAACTCCAAGGAGCCTGAGGTGCTTCTGGAGAACCGAGTGCATAAGCAGGAGCTAGAGCTGCTCAAC GAGGTGAAGCTGCTGCGCAAGGAGAGCCGCAACATGAACTCGCGGGTCACGCAGCTCTACATGCAGCTCCTGCAC GAGATCATCCGCAAGCGGGACAACGCGTTGGAGCTCTCCCAGCTGGAGAACAGGATCCTGAACCAGACAGCCGAC GCTGCCCCGCCCGGGTCTACCAACCACCCACCTACAACCGCATCATCAACCAGATCTCTACCAACGAGATCCAG AGTGACCAGAACCTGAAGGTGCTGCCACCCCTCTGCCCACTATGCCCACTCTCACCAGCCTCCCATCTTCCACC GACAAGCCGTCGGGCCCATGGAGAGACTGCCTGCAGGCCCTGGAGGATGGCCACGACACCAGCTCCATCTACCTG GTGAAGCCGGAGAACACCAACCGCCTCATGCAGGTGTGGTGCGACCAGAGACACGACCCCGGGGGCTGGACCGTC GATGGCGAATACTGGCTGGGCCTGGAGAACATTTACTGGCTGACGAACCAAGGCAACTACAAACTCCTGGTGACC ATGGAGGACTGGTCCGGCCGCAAAGTCTTTGCAGAATACGCCAGTTTCCGCCTGGAACCTGAGAGCGAGTATTAT AAGCTGCGGCTGGGGCGCTACCATGGCAATGCGGGTGACTCCTTTACATGGCACAACGGCAAGCAGTTCACCACC CTGGACAGAGATCATGATGTCTACACAGGAAACTGTGCCCACTACCAGAAGGGAGGCTGGTGGTATAACGCCTGT GCCCACTCCAACCTCAACGGGGTCTGGTACCGCGGGGGCCCATTACCGGAGCCGCTACCAGGACGGAGTCTACTGG TAAGCCAGCTCCCCCTCC

MRPLCVTCWWLGLLAAMGAVAGQEDGFEGTEEGSPREFIYLNRYKRAGESQDKCTYTFIVPQQRVTGAICVNSKE
PEVLLENRVHKQELELLNNELLKQKRQIETLQQLVEVDGGIVSEVKLLRKESRNMNSRVTQLYMQLLHEIIRKRD
NALELSQLENRILNQTADMLQLASKYKDLEHKYQHLATLAHNQSEIIAQLEEHCQRVPSARPVPQPPPAAPPRVY
QPPTYNRIINQISTNEIQSDQNLKVLPPPLPTMPTLTSLPSSTDKPSGPWRDCLQALEDGHDTSSIYLVKPENTN
RLMQVWCDQRHDPGGWTVIQRRLDGSVNFFRNWETYKQGFGNIDGEYWLGLENIYWLTNQGNYKLLVTMEDWSGR
KVFAEYASFRLEPESEYYKLRLGRYHGNAGDSFTWHNGKQFTTLDRDHDVYTGNCAHYQKGGWWYNACAHSNLNG
VWYRGGHYRSRYODGVYWAEFRGGSYSLKKVVMMIRPNPNTFH

#### 3016/6881 FIGURE 2784A

CAGGATATAATTGATACAGCATGTGAAGTATTGGCCGACCCTTCTCTCCGGAACTGTTCTGGGGAACAGAGCCA ACTTCTGGCCTTGGGATCATTCTGGACAGTGTGTGTGGAATGTTTTCCCCACCTTCTCTCCCCACTCCTGCAACTG CTCCGAGCCCTGGTATCAGGGAAGTCCACAGCCAAAAAGGTGTATAGCTTCTTGGATAAGATGTCTTTCTACAAT GAACTTTATAAACACAAGCCTCATGATGTGATCTCCCATGAAGATGGAACTCTTTGGCGGAGACAAACACCCAAA CTCCTTTATCCCCTTGGGGGTCAAACCAACCTTCGCATACCTCAAGGCACTGTGGGCCAAGTAATGTTGGATGAT AGGGCATACCTGGTACGCTGGGAATACTCCTATAGCAGCTGGACCCTCTTTACCTGCGAGATTGAAATGTTGCTT CATGTTGTTTCAACTGCAGATGTGATTCAGCACTGCCAGCGAGTCAAACCCATCATTGATCTCGTCCATAAGGTC ATCAGTACAGACCTGTCGATAGCAGACTGTCTCCTGCCCATCACATCTCGCATCTACATGCTGCTGCAGCGGTTA ACGACAGTGATCTCCCCACCTGTGGATGTCATTGCTTCTTGTGTCAACTGCTTAACTGTTTTGGCTGCCCGCAAT  ${\tt CCAGCAAAGGTCTGGACTGATCTTCGTCACACAGGTTTTTTACCATTTGTGGCCCATCCTGTCTCCAGCCTGAGT}$ CAGATGATTAGTGCGGAAGGGATGAATGCTGGAGGGTACGGAAACCTCTTGATGAACAGTGAACAGCCTCAGGGC GAGTATGGGGTTACTATTGCCTTTCTGCGCTTGATCACCACCCTTGTCAAGGGGCCAACTTGGTAGTACCCAGAGC CAAGGACTTGTACCCTGTGTAATGTTTGTGCTGAAGGAGATGCTTCCCAGCTACCATAAGTGGCGCTACAACTCT CATGGAGTGAGGGAACAGATTGGTTGCCTGATCTTGGAGCTGATTCATGCGATACTGAACCTGTGCCACGAGACA GACCTGCACAGCAGTCATACTCCCAGCCTGCAGTTTCTCTGCATCTGCAGCCTGGCATACACAGAAGCAGGACAG ACAGTTATCAATATCATGGGCATTGGCGTGGACACCATTGACATGGTGATGGCTGCTCAGCCTCGAAGTGATGGG GCAGAGGGCCAGGGGCAGCTGCTGATCAAGACAGTGAAACTGGCATTCTCCGTCACCAACAATGTTATT CGGCTGAAACCTCCTTCTAATGTGGTGTCCCCCCTGGAACAGGCTCTCTCACAACATGGTGCTCATGGAAACAAC CTCATTGCTGTTCTAGCCAAATACATCTACCACAAACATGACCCTGCTTTGCCACGTCTTGCCATTCAGCTGCTG AAACGTCTGGCCACGGTGGCCCCAATGTCAGTGTATGCTTGTCTGGGCAATGATGCGGCTGCCATTCGTGATGCC TTCCTGACCCGATTGCAGAGCAAAATTGAGGACATGCGCATCAAAGTCATGATTCTAGAGTTCCTCACTGTTGCA  ${\tt GTAGAGACCCAGCCAGGCCTCATCGAACTGTTTCTGAACCTGGAAGTTAAGGATGGCAGTGATGGCTCAAAGGAA}$ TGCCCACCCTGCTGCATCGTGCCGCCATTGCCTTTTTGCATGCTCTGTGGCAGGATCGGAGGGACAGTGCCATG CTGGTCCTCCGAACCAAACCCAAGTTTTGGGAAAATTTAACCAGTCCGCTGTTTGGAACCCTTTCTCCTCCTCT GAAACATCAGAGCCCAGCATCCTGGAAACCTGTGCCCTAATCATGAAGATAATTTGCTTGGAGATATACTATGTA GTAAAGGGTTCATTAGACCAGTCATTAAAGGATACACTGAAGAAATTTTCCATCGAGAAACGCTTTGCCTACTGG TCAGGGTATGTCAAGTCATTGGCAGTTCACGTGGCCGAAACAGAAGGCAGCTGCACCTCCTTGTTAGAGTAC TCTGTGGTGCGTCGCCAGCTCTTTCTTGACGTGCTTGATGGAACCAAAGCATTACTCCTAGTTCCAGCCTCAGTG TCTGTGGATGAAATCCTTGGACCCTTGACGGAGATCCTGGAGGGGAGTGCTGCAGGCCGACCAGCAACTCATGGAG CAGTACTCCCAGCTGGTGCTGAATGTCTGTGAGACCCTCCAAGAGGAAGTGATTGCACTCTTCGACCAGACCCGC CACAGTCTGGCATTAGGCAGTGCCACAGAGGACAAGGACAGGACTGAGACTGACGACTGTTCTCGGTCCCGGCAC AGGGACCAGCGTGATGGGGTGTGTCCTGGGCCTGCACCTGGCCAAGGAGCTGTGTGAGGTAGACGAGGATGGT ATGAAGCAGAACCTGCATTTCACTGAGGCCACATTGCATCTGCTCCTCACCCTGGCTCGCACTCAGCAGGGAGCC GGCACAGCACAGACACCTAGTGCCTCTCGGAAGTCCCTGGATGCCCCCTCTTGGCCAGGAGTCTACCGCCTGTCC CACCAGGAGCGGACCTTACAGTGCCTCAACGCAGTGAGGACAGTGCAGAGTCTGGCCTGGAGGAGGCGGAC CACACCGTGGGTTTTATTCTGCAGCTCTCTAACTTCATGAAGGAGTGGCACTTCCACCTGCCTCAGCTCATGCGT GATATCCAGGTCAACCTGGGTTACTTGTGCCAGGCATGTACCTCTCTCCTGCACAGTCGAAAGATGCTGCAGCAT TACTTACAGAACAAAAATGGGGATGGCCTCCCCTCAGCTGTTGCCCAGCGAGTCCAGAGGCCACCGTCTGCTGCT TCTGCTGCCCCTCCTCCAAAGCAGCCCGCTGCTGACACAGAGGCATCAGAGCAGCAGCCTTGCACACAGTC CAGTATGGCCTTCTCAAGATCCTCAGCAAGACGCTGGCAGCCCTGCGCCACTTCACCCCAGATGTCTGCCAGATT 

#### 3017/6881 FIGURE 2784B

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MASGGGVRASGRAKMAAAAGGPCVRSSRELWTILLGRSALRELSQIEAELNKHWRRLLEGLSYYKPPSPSSAEKV KANKDVASPLKELGLRISKFLGLDEEQSVQLLQCYLQEDYRGTRDSVKTVLQDERQSQALILKIADYYYEERTCI LRCVLHLLTYFQDERHPYRVEYADCVDKLEKELVSKYRQQFEELYKTEAPTWETHGNLMTERQVSRWFVQCLREQ SMLLEIIFLYYAYFEMAPSDLLVLTKMFKEQGFGSRQTNRHLVDETMDPFVDRIGYFSALILVEGMDIESLHKCA LDDRRELHQFAQDGLICQDMDCLMLTFGDIPHHAPVLLAWALLRHTLNPEETSSVVRKIGGTAIQLNVFQYLTRL LQSLASGGNDCTTSTACMCVYGLLSFVLTSLELHTLGNQQDIIDTACEVLADPSLPELFWGTEPTSGLGIILDSV CGMFPHLLSPLLQLLRALVSGKSTAKKVYSFLDKMSFYNELYKHKPHDVISHEDGTLWRRQTPKLLYPLGGQTNL RIPQGTVGQVMLDDRAYLVRWEYSYSSWTLFTCEIEMLLHVVSTADVIOHCORVKPIIDLVHKVISTDLSIADCL  $\verb|LPITSRIYMLLQRLTTVISPPVDVIASCVNCLTVLAARNPAKVWTDLRHTGFLPFVAHPVSSLSQMISAEGMNAG|$ GYGNLLMNSEQPQGEYGVTIAFLRLITTLVKGQLGSTQSQGLVPCVMFVLKEMLPSYHKWRYNSHGVREOIGCLI LELIHAILNLCHETDLHSSHTPSLQFLCICSLAYTEAGQTVINIMGIGVDTIDMVMAAQPRSDGAEGQGQGQLLI KTVKLAFSVTNNVIRLKPPSNVVSPLEQALSQHGAHGNNLIAVLAKYIYHKHDPALPRLAIOLLKRLATVAPMSV YACLGNDAAAIRDAFLTRLQSKIEDMRIKVMILEFLTVAVETQPGLIELFLNLEVKDGSDGSKEFSLGMWSCLHA VLELIDSQQQDRYWCPPLLHRAA1AFLHALWQDRRDSAMLVLRTKPKFWENLTSPLFGTLSPPSETSEPSILETC ALIMKIICLEIYYVVKGSLDQSLKDTLKKFSIEKRFAYWSGYVKSLAVHVAETEGSSCTSLLEYQMLVSAWRMLL IIATTHADIMHLTDSVVRRQLFLDVLDGTKALLLVPASVNCLRLGSMKCTLLLILLROWKSILSRELGSVDEILG PLTEILEGVLQADQQLMEKTKAKVFSAFITVLQMKEMKVSDIPQYSQLVLNVCETLQEEVIALFDQTRHSLALGS ATEDKDSMETDDCSRSRHRDQRDGVCVLGLHLAKELCEVDEDGDSWLQVTRRLPILPTLLTTLEVSLRMKQNLHF TEATLHLLLTLARTQQGATAVAGAGITQSICLPLLSVYQLSTNGTAQTPSASRKSLDAPSWPGVYRLSMSLMEQL LKTLRYNFLPEALDFVGVHQERTLQCLNAVRTVQSLACLEEADHTVGFILQLSNFMKEWHFHLPOLMRDIOVNLG YLCQACTSLLHSRKMLQHYLQNKNGDGLPSAVAQRVQRPPSAASAAPSSSKQPAADTEASEQQALHTVQYGLLKI LSKTLAALRHFTPDVCQILLDQSLDLAEYNFLFALSFTTPTFDSEVAPSFGTLLATVNVALNMLGELDKKKEPLT  ${\tt QAVGLSTQAEGTRTLKSLLMFTMENCFYLLISQAMRYLRDPAVHPRDKQRMKQELSSELSTLLSSLSRYFRRGAP}$ SSPATGVLPSPQGKSTSLSKASPESQEPLIQLVQAFVRHMQR

AATTTGGCCAGGCTGAGAAGACTGAGCTTGATGCCCACTTTGAAAACCTTCTGGCCCGGCCAGACAGCACCAAGA ACTGGACAGAGAAGATCTTGAGGCAGACAGAGGTGCTGCTGCAGCCCAACCCCAGTGCCCGAGTGGAGGAGTTCC TGTATGAGAAGCTGGACAGGAAGGTCCCCTCAAGGGTCACCAACGGGGAGCTGCTGGCTCAGTACATGGCAGACG CGGCCAGTGAGCTGGGGCCGACCACCCCCTATGGGAAGACACTGATCAAGGTGGCAGAAGCTGAAAAAGCAACTGG GAGCCGCGGAGAGGGATTTTATCCACACGGCCTCCATCAGCTTCCTCACACCCTTGCGCAACTTCCTGGAGGGGG ACTGGAAGACCATCTCGAAGGAGGGGGCTCCTCCAAAACCGGCGTCTGGACTTGGATGCCTGCAAAGCGAGGC TGAAGAAGGCCAAGGCTGCAGAAGCCAAAGCCACGTGTGAGGGAGATACGGTGCCTGACTTTCAGGAGACTAGAC CTCGTAATTACATTCTCTCGGCCAGCGCCTCCGCGCTCTGGAATGATGAAGTGGACAAGGCCGAGCAGGAGCTCC GCGTGGCCCAGACAGAGTTTGACCGGCAAGCAGAAGTGACCCGTCTCTTGCTGGAGGGAATCAGTAGCACTCACG TGAACCACCTGCGCTGCCTCCACGAGTTCGTCAAGTCTCAGACAACCTACTACGCACAGTGCTACCGCCACATGC TGGACTTGCAGAAGCAGCTGGGCAGCTCCCAGGGTGCCATATTTCCCGGCACCTTCGTGGGCACCACAGAGCCCG CCTCCCCACCCTGAGCAGCACCTCACCCACCACTGCTGCGGCCACTATGCCTGTGGTGCCCTCTGTGGCCAGCC TGGCCCCTCCGGGGGAGGCCTCGCTCTGCCTGGAAGAGGTGGCCCCCCTGCCAGTGGGACCCGCAAAGCTCGGG AACTGCTCAGCTAGGCAGGTGCCCCCATCCCCCCGCATTCTGGCCTAGGCAGAGAGGATGGGCGCAGCCCTGC ACCTAGCTGTGAGGGTGCCTGAGGCTGAATGGCTCCACCCCTCCCCAGCCCTGCTTCTGACCTGTGGCTCTGGA GCTGCACTCAGCACCTAGGCCAGGTGGGGCCGCCGCAGATGGGCTCAGGAAGCCCCAGGTGCACTCAGCGAGAG CTGGGCGCTGCCCTGGGAGGGGAGAGCCTGGCCAGGGCTGTTTGGGCCCGGAGCAGCATCTTCCGGTGCTAT CCTCCCTCCCACCCCTCACAGCTCAAGCCAAGTCCAGCGGCCGC

GCTTGCTCCCTGAGCGCCCCGCACCGACATGGCGGCCGTCTTCGCTGTGGTGACTTTAACTCTCGGTTTTCGGTT AAGAGTGAAAGGCGAGAGGGGACTGCAAGCATCCGGGTCGGCTCCTGGCCGGAGCAAGATGGCTGAGGGCGAGCG GCAGCCGCCGCCAGATTCTTCAGAGGAGGCCCCTCCAGCCACTCAGAACTTCATCATTCCAAAAAAAGGAGATCCA CACAGTTCCAGACATGGGCAAATGGAAGCGTTCTCAGGCATACGCTGACTACATCGGATTCATCCTTACCCTCÅA CGAAGGTGTGAAGGGGAAGAAGCTGACCTTCGAGTACAGAGTCTCCGAGATGTGGAATGAGGTTCATGAGGAAAA GGAGCAGGCTGCAAAGCAGAGTGTGTCCTGCGATGAATGCATACCATTACCCCGCGCCCGGGCACTGTGCACCTTC GGAGGCCATTGAGAAACTAGTCGCTCTTCTCAACACGCTGGACAGGTGGATTGATGAGACTCCTCCAGTGGACCA GCCCTCTCGGTTTGGGAATAAGGCATACAGGACCTGGTATGCCAAACTTGATGAGGAAGCAGAAAACTTGGTGGC CACAGTGGTCCCTACCCATCTGGCAGCTGCTGTGCCTGAGGTGGCTGTTTACCTAAAGGAGTCAGTGGGGAACTC CACGCGCATTGACTACGGCACAGGGCATGAGGCAGCCTTCGCTGCTTTCCTCTGCTGTCTCTCTGCAAGATTGGGGT GCTCCGGGTGGATGACCAAATAGCTATTGTCTTCAAGGTGTTCAATCGGTACCTTGAGGTTATGCGGAAACTCCA GAAAACATACAGGATGGAGCCAGCCGGCAGCCAGGGAGTGTGGGGTCTGGATGACTTCCAGTTTCTGCCCTTCAT CTGGGGCAGTTCGCAGCTGATAGACCACCCATACCTGGAGCCCAGACACTTTGTGGATGAGAAGGCCGTGAATGA GAACCACAGGACTACATGTTCCTGGAGTGTATCCTGTTTATTACCGAGATGAAGACTGGCCCATTTGCAGAGCA  $\verb|CTCCAACCAGCTGTGGAACATCAGCGCCGTCCCTTCCTGGTCCAAAGTGAACCAGGGTCTCATCCGCATGTATAA||$ GGCCCCTCCCATCCCCTCCTCTGTTCGTCCCGTTTGATGAGAGGCTGTTTACTGGGGTTGGGGTGGCGAGATGG GCTTGAGGGGGCTCAGAGCATAAGGCTTCAGGGCCCAAGTTGGGAGAAGTGACCAAAGTGTAGCCAGTTTTCTGA TCTTCTCCCTTCACTCCCGTCCAGTCTGGTTTTGAGAGCAGGGGCTGTTCTGCAGCACCGCAGGGAAGGGAGGAG AGATACCTGCTGCTTCCATTGCTTTTCCCTTCCTGGAGTCGATGCCTTTCTAAGGGTTGGAGCTGCTCCTTGCAG GGGCGGGTCAGTTTCCCAGGCCATGCCGGGGTGGCCATCTATGGTAGGGCTGGAAGCTGAGGCTGGCCGCCAGCT CCTTTTCACCCTGCCCCTGGGCCTGAGGCCCCCTGTGTCCAAGCCTCCCCCTGGCTCTTCAGTTCTCTAGCCCT TGGCTCTGCTGGGTTTCCTGACTGTAGCCACATCTCTCCCGCTCCCTAAGGGTAACCTAGCCAATGGAAGCTGCC CTTTGGGTAGGTGCTGGGCTCCTGGGAGGGCCCAGATGATGGGGTGAGGCATGTCTTTCCAGAACTTTCCCTGGC AGGGAGGGATGGCAGAAACTCAGGGAGGGGCTTGGGGCCCATTGTATCTGGAGAGCCTGGATTCCTCTTGGCAG TCTTAGGCCCGGCCACTTCTGCTACCTTTGCGCTGCTGTGAGCCTCACCCTGGGCCCCTGGGCCCTGCTTCTCTG CTCCCCTGGGTGATGGGTGGGCCCAGAAGGTGGCAGTCCCACACCTTGTCCTCCCACCTCCCTGAACTGTCCATT GCTTTTATAGGGTGAGGTAAGAGACAGCCTCCCAAGCCCAGGCTTTGGCACTCAGAATGGGCCCAGTGGGGGCTG GGCAGGCCCATTGAGGGCCACCGCCGAGGTTTCTCCTAGGGCTGTTCCTGGGCCTGGCTCTTACAGGCTCGTCCC CCAGGCCTGCCCTTCTCCACTGCCCCCTCCTGTGTCTGGGTCCACACCCCTTCAGGAAGGGGGAGCACTGAGAA GCACAGCACAGGGGCTCAGCCTGGGATCCGGTGATGGTCTGGGCAGAGGCTGGGTCAGGAGTCCCAAAGGTCAGT GACAGTTTCTCAGAAGAGGCCCAGCGTCCACCTCTCTCCCAGGGCCAGACAGCCCTTCCTGGCTCCCCCATCCCC CTATGGGCTCCCAGCCCCTTGCACCCTCATTGCTGTTCAGATTAAAGCCTCTGTTTTGCACCTGT

MSSKLLEPAGAHLSSGSSEPLVEPGRGRVGARVKGERGLQASGSAPGRSKMAEGERQPPPDSSEEAPPATQNFII PKKEIHTVPDMGKWKRSQAYADYIGFILTLNEGVKGKKLTFEYRVSEMWNEVHEEKEQAAKQSVSCDECIPLPRA GHCAPSEAIEKLVALLNTLDRWIDETPPVDQPSRFGNKAYRTWYAKLDEEAENLVATVVPTHLAAAVPEVAVYLK ESVGNSTRIDYGTGHEAAFAAFLCCLCKIGVLRVDDQIAIVFKVFNRYLEVMRKLQKTYRMEPAGSQGVWGLDDF QFLPFIWGSSQLIDHPYLEPRHFVDEKAVNENHKDYMFLECILFITEMKTGPFAEHSNQLWNISAVPSWSKVNQG LIRMYKAECLEKFPVIQHFKFGSLLPIHPVTSG

ATGGAGTGCGCCCTGGACGCCCAGAGCCTGATCAGCATCTCCCTGCGCAAGATCCACAGCTCCCGAACCCAGCGC GGCGCATCAAGCTGCACAAGAACCTCCTGCGCGCCCCTTCGAGGACTTCTGCCCGGACTCGTCCCCGGACGCG TCCAACATCTCAAACTTGATCTCCATCTTTGGCTCCGGCTTCTCGGGGCTGGTGAGCCGACAGCCGGACTCCTCG GAGCAGCCGCCGCCCCCCAACGGGCCTCGACCCCAAGCAGCCGCCCTCGACCCCAGCCTCGACCCAATCTCTAG

#### 3023/6881 FIGURE 2790A

ACAGCACAGACAGATTGACCTATTGGGGTGTTTCGCGAGTGTGAGAGGGGAAGCGCCGCGGCCTGTATTTCTAGAC  $\tt CTGCCCTTCGCCTGGTTCGTGGCGCCTTGTGACCCCGGGCCCTGCCGCCTGCAAGTCGGAAATTGCGCTGTGCT$ GCGATGCTGCTGCTCAGCGCGGCCGGGCCGAGGAGGACAAGAAGAAGAAGGACGTGGCACGGTGGTCGGC ATCGACCTGGGGACCACCTACTCCTGCGTCGGCGTGTTCAAGAACGGCCGCGTGGAGATCATCGCCAACGATCAG GGCAACCGCATCACGCCGTCCTATGTCGCCTTCACTCCTGAAGGGGAACGTCTGATTGGCGATGCCGCCAAGAAC CAGCTCACCTCCAACCCCGAGAACACGGTCTTTGACGCCAAGCGGCTCATCGGCCGCACGTGGAATGACCCGTCT GTGCAGCAGGACATCAAGTTCTTGCCGTTCAAGGTGGTTGAAAAGAAAACTAAACCATACATTCAAGTTGATATT GAGGCTTATTTGGGAAAGAAGGTTACCCATGCAGTTGTTACTGTACCAGCCTATTTTAATGATGCCCAACGCCAA GCAACCAAAGACGCTGGAACTATTGCTGGCCTAAATGTTATGAGGATCATCAACGAGCCTACGGCAGCTGCTATT GCTTATGGCCTGGATAAGAGGGGGGGGGAGAAGAACATCCTGGTGTTTGACCTGGGTGGCGGAACCTTCGATGTG TCTCTTCTCACCATTGACAATGGTGTCTTCGAAGTTGTGGCCACTAATGGAGATACTCATCTGGGTGGAGAAGAC TTTGACCAGCGTGTCATGGAACACTTCATCAAACTGTACAAAAAGAAGACGGGCAAAGATGTCAGGAAAGACAAT GAAATTGAGTCCTTCTATGAAGGAGAAGACTTTTCTGAGACCCTGACTCGGGCCAAATTTGAAGAGCTCAACATG GATCTGTTCCGGTCTACTATGAAGCCCGTCCAGAAAGTGTTGGAAGATTCTGATTTGAAGAAGTCTGATATTGAT GAAATTGTTCTTGTTGGTGGCTCGACTCGAATTCCAAAGATTCAGCAACTGGTTAAAGAGTTCTTCAATGGCAAG GAACCATCCCGTGGCATAAACCCAGATGAAGCTGTAGCGTATGGTGCTGCTGTCCAGGCTGGTGTCCTCTGGT GATCAAGATACAGGTGACCTGGTACTGCTTGATGTATGTCCCCTTACACTTGGTATTGAAACTGTGGGAGGTGTC ATGACCAAACTGATTCCAAGGAACACAGTGGTGCCTACCAAGAAGTCTCAGATCTTTTCTACAGCTTCTGATAAT CAACCAACTGTTACAATCAAGGTCTATGAAGGTGAAAGACCCCTGACAAAAGACAATCATCTTCTGGGTACATTT ATTCTTCGAGTGACAGCTGAAGACAAGGGTACAGGGAACAAAAATAAGATCACCAATGACCAGAATCGC CTGACACCTGAAGAAATCGAAAGGATGGTTAATGATGCTGAGAAGTTTGCTGAGGAAGACAAAAAAGCTCAAGGAG CGCATTGATACTAGAAATGAGTTGGAAAGCTATGCCTATTCTCTAAAGAATCAGATTGGAGATAAAGAAAAGCTG GGAGGTAAACTTTCCTCTGAAGATAAGGAGACCATGGAAAAAGCTGTAGAAGAAAAGATTGAATGGCTGGAAAAGC CACCAAGATGCTGACATTGAAGACTTCAAAGCTAAGAAGAAGGAACTGGAAGAAATTGTTCAACCAATTATCAGC AAACTCTATGGAAGTGCAGGCCCTCCCCCAACTGGTGAAGAGGATACAGCAGAAAAAGATGAGTTG**TAG**ACACTG ATCTGCTAGTGCTGTAATATTGTAAATACTGGACTCAGGAACTTTTGTTAGGAAAAAATTGAAAGAACTTAAGTC TCGAATGTAATTGGAATCTTCACCTCAGAGTGGAGTTGAAACTGCTATAGCCTAAGCGGCTGTTTACTGCTTTTC ATTAGCAGTTGCTCACATGTCTTTGGGTGGGGGGGAGAAGAAGTTGGCCATCTTAAAAAGCAGGTAAAAAACC TGGGTTAGGGTGTGTTCACCTTCAAAATGTTCTATTTAACAACTGGGTCATGTGCATCTGGTGTAGGAAGTTT TTTCTACCATAAGTGACACCAATAAATGTTTGTTATTTACACTGGTCTAATGTTTGTGAGAAGCTTCTAATTAGA TCCTTCCACCTCAGTCTCCCAGCTAATTGAGACCACAGGCTTGTTACCACCATGCTCGGCTTTTGCATTAATCTA AGAAAAGGGGAGAGAGTTAATCCACATCTTTACTCAGGCAAGGGGCATTTCACAGTGCCCAAGAGTGGGGTTTT CTTGAACATACTTGGTTTCCCTATTTCCCCTTATCTTCTAAAACTGCCTTTCTGGTGGCTTTTTTTAAAATTATT TACACTTGGATTTCATTTGTAACTTTAGGATGTAAAGGTATATTGTGAACCCTAGCTGTGTCAGAATCTCCATCC CTGAAATTTCTCATTAGTGGTACTGGGGTGGGATCTTGGATGGTGACATTGAAACTACACTAAATCCCCTCACTA TGAATGGGTTGTTAAAGGCAATGGTTTGTGTCAAAACTGGTTTAGGATTACTTAGATTGTGTTCCTGAAGAAAAG AGTCCAGGTAAATGGTATGATCAATAAAGGACAGGCTGGTGCTAACATAAAATCCAATATTTGTAATCCTAGCACT TTGGGAGGCCAAGGCGGGTGGATCACAAGGTCAAGAGATAGAGACCATCTTTGCCAACATGGTGAAACTCCATCT CTACTGAAAATTACAAAAATTAGCTGGGCGTGGTAGTGCAAGCTGAAGGCTGAGGCAGGAGAATCACTCGAACCCG GGAGGCAGAGGTTGCAGTGAGCCGAGATCACACCACTGTACTCCAGCCCGGCACTCCAGCCTGGCGACAAGAGTG AGACTCCACCTCAAAAAAAAAAAAAAAAAAAAACTCCAATACTGCCCAAGGATAGGTATTTTATAGATGGGCAACTGGCT

# 3024/6881 FIGURE 2790B

MKLSLVAAMLLLLSAARAEEEDKKEDVGTVVGIDLGTTYSCVGVFKNGRVEIIANDQGNRITPSYVAFTPEGERL IGDAAKNQLTSNPENTVFDAKRLIGRTWNDPSVQQDIKFLPFKVVEKKTKPYIQVDIGGGQTKTFAPEEISAMVL TKMKETAEAYLGKKVTHAVVTVPAYFNDAQRQATKDAGTIAGLNVMRIINEPTAAAIAYGLDKREGEKNILVFDL GGGTFDVSLLTIDNGVFEVVATNGDTHLGGEDFDQRVMEHFIKLYKKKTGKDVRKDNRAVQKLRREVEKAKRALS SQHQARIEIESFYEGEDFSETLTRAKFEELNMDLFRSTMKPVQKVLEDSDLKKSDIDEIVLVGGSTRIPKIQQLV KEFFNGKEPSRGINPDEAVAYGAAVQAGVLSGDQDTGDLVLLDVCPLTLGIETVGGVMTKLIPRNTVVPTKKSQI FSTASDNQPTVTIKVYEGERPLTKDNHLLGTFDLTGIPPAPRGVPQIEVTFEIDVNGILRVTAEDKGTGNKNKIT ITNDQNRLTPEEIERMVNDAEKFAEEDKKLKERIDTRNELESYAYSLKNQIGDKEKLGGKLSSEDKETMEKAVEE KIEWLESHQDADIEDFKAKKKELEEIVQPIISKLYGSAGPPPTGEEDTAEKDEL

CCTAAGTCGCCGCAGAACTGCCACGTGGGGATGAGATTTGCTGGGCTGGTAGCGGCGGCTGCTGCGGGGAGGTCC  $\tt CGCCCACGTGAAGCCAGCCTAACTGAGCTCTGGACTTTGGGGACAGCTGTCAGTGGCCTAGGCCGCAGGACACC{\underline{A}}$ TGAAGCAACTGCCAGTCTTGGAACCTGGAGACAAGCCCAGGAAAGCAACATGGTACACCTTGACTGTCCCTGGAG ACAGCCCCTGTGCTCGAGTTGGCCACAGCTGTTCATATTTACCCCCAGTTGGTAATGCCAAGAGAGGGGAAGGTCT TCATTGTTGGGGGAGCAAATCCAAACAGAAGCTTCTCAGACGTGCACACCATGGATCTGGGAAAACACCAGTGGG ACTTAGATACCTGCAAGGGCCTCTTGCCCCGGTATGAACATGCTAGCTTCATTCCCTCCTGCACACCTGACCGTA TTTGGGTATTTGGAGGTGCCAACCAATCAGGAAATCGAAATTGTCTACAAGTCCTGAATCCTGAAACCAGGACGT GGACCACGCCAGAAGTGACCAGCCCCCCACCATCCCCAAGAACATTCCACACATCATCGGCAGCCATTGGAAACC AGCTATATGTCTTTGGGGGTGGAGAGAGGTGCCCAGCCCGTGCAGGACACGAAGCTGCATGTGTTTGACGCAA ACACTCTGACCTGGTCACAGCCAGAGACACTTGGAAATCCTCCATCTCCCCGGCATGGTCATGTGATGGTGGCAG  ${\tt CAGGGACAAAGCTCTTCATCCACGGAGGCTTGGCGGGGGACAGATTCTATGATGACCTCCACTGCATTGATATAA}$ GTGACATGAAATGGCAGAAGCTAAATCCCACTGGGGCTGCTCCAGCAGGCTGTGCCCACCTCAGCTGTGGCCA TGGGAAAACATGTGTACATCTTTGGTGGAATGACTCCTGCAGGAGCACTGGACACAATGTACCAGTATCACACAG AAGAGCAGCATTGGACCTTGCTTAAATTTGATACTCTTCTACCCCCTGGACGATTGGACCATTCCATGTGTATCA TTCCATGGCCAGTGACGTGTGCTTCTGAGAAAGAAGATTCCAACTCTCTCACTCTGAACCATGAAGCTGAGAAAG AGGATTCAGTTGACAAAGTAATGAGCCACAGTGGTGACTCACATGAGGAAAGCCAGACTGCTACACTGCTCTGTT  $\tt TGGTGTTTGGTGGGATGAATACAGAAGGGGAAATCTATGACGATTGTATTGTGACTGTAGTGGAC\underline{\textbf{TAA}} \texttt{TAAAAACC}$ CACATTTTTATTAAAAAAAAAAA

MKQLPVLEPGDKPRKATWYTLTVPGDSPCARVGHSCSYLPPVGNAKRGKVFIVGGANPNRSFSDVHTMDLGKHQW DLDTCKGLLPRYEHASFIPSCTPDRIWVFGGANQSGNRNCLQVLNPETRTWTTPEVTSPPPSPRTFHTSSAAIGN QLYVFGGGERGAQPVQDTKLHVFDANTLTWSQPETLGNPPSPRHGHVMVAAGTKLFIHGGLAGDRFYDDLHCIDI SDMKWQKLNPTGAAPAGCAAHSAVAMGKHVYIFGGMTPAGALDTMYQYHTEEQHWTLLKFDTLLPPGRLDHSMCI IPWPVTCASEKEDSNSLTLNHEAEKEDSVDKVMSHSGDSHEESQTATLLCLVFGGMNTEGEIYDDCIVTVVD

CTTCCTCTTTCCCTCGGAGCGGGCGGCGGCGTTGGCGGCTTGTGCAGCAATCGCCCAAGATCAAGGCTCGAGATCT
TCGCGGGAAGAAGAAGAAGAAGCTGCTGAAACAGCTGGACGACCTGAAGGTGGAGCTGTCCCAGCTGCGCGTCGC
CAAAGTGACAGGCGGTGCGGCCTCCAAGCTCTCTAAGATCCGAGTCGTCCGGAAATCCATTGCCCGTGTTCTCAC
AGTTATTAACCAGACTCAGAAAGAAAACCTCAGGAAATTCTACAAGGGCAAGAAGTACAAGCCCCTGGACCTGCG
GCCTAAGAAGAACACGTGCCATGCGCCGCCGGCTCAACAAGCACGAGGAGAACCTGAAGACCAAGAAGCACCAGCG
GAAGGAGCGGCTGTACCCGCTGCGGAAGTACGCGGTCAAGGCCCTGAGGGCGCATTGTCAATAAAGCACAGCTGG
CTGAG

 ${\tt MAKIKARDLRGKKKEELLKQLDDLKVELSQLRVAKVTGGAASKLSKIRVVRKSIARVLTVINQTQKENLRKFYKGKKYKPLDLRPKKTRAMRRRLNKHEENLKTKKQQRKERLYPLRKYAVKA}$ 

GCCGTGTCGCCACC<u>ATG</u>GCTCCGCACCGCCCCCGCGCCCCGCGCTGCTTTGCGCGCTGTCCCTGGCGCTGTGCGCGC GGCGTGTGGAGAAGTTCGATCTGGTGCCCGTGCCCACCAACCTTTATGGAGACTTCTTCACGGGCGACGCCTACG GCCAGGATGAGAGCGGGCGGCCGCCATCTTTACCGTGCAGCTGGATGACTACCTGAACGGCCGGGCCGTGCAGC ACCGTGAGGTCCAGGGCTTCGAGTCGGCCACCTTCCTAGGCTACTTCAAGTCTGGCCTGAAGTACAAGAAAGGAG GTGTGGCATCAGGATTCAAGCACGTGGTACCCAACGAGGTGGTGCAGAGACTCTTCCAGGTCAAAGGGCGGC GTGTGGTCCGTGCCACCGAGGTACCTGTGTCCTGGGAGAGCTTCAACAATGGCGACTGCTTCATCCTGGACCTGG  ${\tt GCAACAACATCCACCAGTGTTGTTGTTCCAACAGCAATCGGTATGAAAGACTGAAGGCCACACAGGTGTCCAAGG}$ GCATCCGGGACAACGAGCGGAGTGGCCGGGCCCGAGTGCACGTGTCTGAGGAGGGCACTGAGCCCGAGGCGATGC TCCAGGTGCTGGGCCCCAAGCCGGCTCTGCCTGCAGGTACCGAGGACACCGCCAAGGAGGATGCGGCCAACCGCA AGCTGGCCAAGCTCTACAAGGTCTCCAATGGTGCAGGGACCATGTCCGTCTCCCTCGTGGCTGATGAGAACCCCT TCGCCCAGGGGGCCCTGAAGTCAGAGGACTGCTTCATCCTGGACCACGGCAAAGATGGGAAAATCTTTGTCTGGA  ${\tt AAGGCAAGCAGGCAAACACGGAGGAGGAGGAAGGCTGCCCTCAAAACAGCCTCTGACTTCATCACCAAGATGGACT}$  $\verb|ACCCCAAGCAGACTCAGGTCTTCGGTCCTTCCTGAGGGCGGTGAGACCCCACTGTTCAAGCAGTTCTTCAAGAACT| \\$ GGCGGGACCCAGACAGACAGATGGCCTGGGCTTGTCCTACCTTTCCAGCCATATCGCCAACGTGGAGCGGGTGC CCTTCGACGCCGCCACCCTGCACACCTCCACTGCCATGGCCGCCCAGCACGCATGGATGACGATGGCACAGGCC AGAAACAGATCTGGAGAATCGAAGGTTCCAACAAGGTGCCCGTGGACCCTGCCACATATGGACAGTTCTATGGAG GCGACAGCTACATCATCTGTACAACTACCGCCATGGTGGCCGCCAGGGGCAGATAATCTATAACTGGCAGGGTG CCCAGTCTACCCAGGATGAGGTCGCTGCATCTGCCATCCTGACTGCTCAGCTGGATGAGGAGCTGGGAGGTACCC CTGTCCAGAGCCGTGTGGTCCAAGGCAAGGAGCCCGCCCACCTCATGAGCCTGTTTGGTGGGAAGCCCATGATCA TCTACAAGGGCGGCACCTCCCGCGAGGGCGGGCAGACAGCCCCTGCCAGCACCCGCCTCTTCCAGGTCCGCCCCA ACAGCGCTGGAGCCACCCGGGCTGTTGAGGTATTGCCTAAGGCTGGTGCACTGAACTCCAACGATGCCTTTGTTC TGAAAACCCCCTCAGCCGCCTACCTGTGGGTGGGTACAGGAGCCAGCGAGGCAGAGAAGACGGGGGCCCAGGAGC TGCTCAGGGTGCTGCGGGCCCAACCTGTGCAGGTGGCAGAAGGCAGCGAGCCAGATGGCTTCTGGGAGGCCCTGG CCTGCTCCAACAGATTGGACGTTTTGTGATCGAAGAGGTTCCTGGTGAGCTCATGCAGGAAGACCTGGCAACGG ATGACGTCATGCTTCTGGACACCTGGGACCAGGTCTTTGTCTGGGTTGGAAAGGATTCTCAAGAAGAAGAAAAAGA  $\tt CAGAAGCCTTGACTTCTGCTAAGCGGTACATCGAGACGGACCCAGCCAATCGGGATCGGCGACGCCCATCACCG$ TGGTGAAGCAAGGCTTTGAGCCTCCTTCTTGTGGGCTGGTTCCTTGGCTGGGATGATTACTGGTCTGTGG  $\tt ACCCCTTGGACAGGCCCATGGCTGAGCTGGCTGCC\underline{TGA} GGAGGGCCAGGCCCATGTCACCGGTCAGTGCC$ GTGTTGTTTCTTTTTTTTTTTTACAGTATCCAAAAATAGCCCTGCAAAAATTCAGAGTCCTTGCAAAATTGTC TAAAATGTCAGTGTTTGGGAAATTAAATCCAATAAAAACATTTTGAAGTGTG

MAPHRPAPALLCALSLALCALSLPVRAATASRGASQAGAPQGRVPEARPNSMVVEHPEFLKAGKEPGLQIWRVEK FDLVPVPTNLYGDFFTGDAYVILKTVQLRNGNLQYDLHYWLGNECSQDESGAAAIFTVQLDDYLNGRAVQHREVQ GFESATFLGYFKSGLKYKKGGVASGFKHVVPNEVVVQRLFQVKGRRVVRATEVPVSWESFNNGDCFILDLGNNIH QWCGSNSNRYERLKATQVSKGIRDNERSGRARVHVSEEGTEPEAMLQVLGPKPALPAGTEDTAKEDAANRKLAKL YKVSNGAGTMSVSLVADENPFAQGALKSEDCFILDHGKDGKIFVWKGKQANTEERKAALKTASDFITKMDYPKQT QVSVLPEGGETPLFKQFFKNWRDPDQTDGLGLSYLSSHIANVERVPFDAATLHTSTAMAAQHGMDDDGTGQKQIW RIEGSNKVPVDPATYGQFYGGDSYIILYNYRHGGRQGQIIYNWQGAQSTQDEVAASAILTAQLDEELGGTPVQSR VVQGKEPAHLMSLFGGKPMIIYKGGTSREGGQTAPASTRLFQVRANSAGATRAVEVLPKAGALNSNDAFVLKTPS AAYLWVGTGASEAEKTGAQELLRVLRAQPVQVAEGSEPDGFWEALGGKAAYRTSPRLKDKKMDAHPPRLFACSNK IGRFVIEEVPGELMQEDLATDDVMLLDTWDQVFVWVGKDSQEEEKTEALTSAKRYIETDPANRDRRTPITVVKQG FEPPSFVGWFLGWDDDYWSVDPLDRAMAELAA

# 3032/6881 FIGURE 2798A

GTTTAGTATTTTTGAGAACCCAGCCACCTGGCCATGCTGTACCAGCCTTGTGCTGAGTGCTGGGGATAAAGGAAC AAATAAAACCCAGTCCAGGCTTCTGTGTGCCCAGCCCTGTGCCGGGTCCCAGTGGGTAACAGCATGTCCAATCCC CTCAGTGTCCCACTAGAGGCTTCCTTTGGGGCTGCTGGGGACATCTTGTTTCTAGTTGAGAATTCAGATTTATGT CCAAAGACAAGAACTCCCTGAGGGGCAGATTACAACATGGACTGGGCCATTACAATCAACAAGGACACAAAGCTA ACACAGCCATCGTTATACACCAGACATGTGCTAAGGACTTGATTTCCCCATTGTTTAATCATCACCAACTCCATT ATCACCCCATTTCACAGATGTGGAAACTGAGGCTGAGAAGAGTAAGGGACTTGTCCAAGGGCACAGAGCAAGTC AGGGCTACGGTGATGTTTCAGGCCCAGACCTGTTTGCCTCTGGAGCCCAGGGTTTAACACACCCCAGTGCTGCTG TGAAAGGGCTCTGGACAGCTCAGGCTGGCCGGCCAATTCGGGGATAACCGAACAGAGGTATGGAACAGAAAAGGGG CGTTGAGGATGTTGCTGTGTGTGCGGTGGGGGGGAGTGACAAGGCTTCAGCAATGGTACTCATTCTCTCCAACC ATCAAGTCACTCCTCAGCTGAGGACCTGTCCATGGCTCCCTGGTACCCAGAGGATAGAAACCCAGCATTCAAAAC GCCAAGCCTGTGCCTACGGTGCCTTCTTGCCTGGAATGCCCAACTCCCCCTTCTCAGCCTTCTTTGACTCTCAAG TAAGGAAAAGCACTCTTTGTCTCCCTGAGCCCCTTGGCACTTATCACAGAGCACTCTGGGCGTTAACTTCCACTG TAGCAAGGACTGGCCGGGTAAACTAAAAAATGCAAAGAGCTGAGAGAATCCTGGGAAAGTGCACATTTCCCAGGA CTGCCCAATGACAAGCCCCGTACCAAGGCACAGCATCAGGATACCCTGATGTGGAAGAACCAAAAATTGCACCCT CATGGCTTATCAGGATGGTCCTTGTGTCTCTCTCCAAGGGTTCTGATAATGAAATCTGGGCAAGTCACCCTC CTGCTTTAAAACTTCCAATGGTTCCCAGAGGTCTAGCATAAAATCCAAACTCAAGGGCCCACATAACCTAGGTGC CACCTCCCTCTCCCTCTTCAGGTCTCACTTTTTAGGGGAGGCTTCCCTGATCTGTCCAGATAAGACCTCACCACT CCCACCCAATCCCAAACGCTCCCATAACCTGATCGTTTCCTTCACAGCAAGAATTAATCTTCAGTGTAAATAATG ATCTACTGAAGACCTATGAGGAATGGGAAAGTCTTGTTTTTTGCTGATTCTTCAACACCCCAGCTCAGAGCCTAAA AAGACAAGAAGGTGGGCAGAATCCTAGGGAACACTGAGGCAGGAAAAGCAGGGCCCTGGGCCAGGCGTCATGGCT GCCAACATGGTAAAACCCTGTCTCTACTAAAAACACAAACATTAGCCGGGTATGGTGGCACATGCCTGTAGTCCC AGCTACTCAAGAGGCTGAGGCAGGAGAATCACTTGTACCTGGGAGGAGGAGGTTGCAGTGAGCTGAGATCGTGCC TCCTGAGGAAAGAGCACTGGATTGGACATCGAGGAGGTCACTGGGGCCTCCCTGATTGAACCAAGGTTCCGTGGA GGTGGGCACAGGGCTGGTACATTGCAGGGGGCAGAGGAGTAAAGAGGGATGAATAAGCAAAGCTCTCAGGCGACG GTTGCTCAGCTGGGTCTATGCCAGCCTGGCCCTGCAGGGTCTGCGGAAGACAGGGCCCCTGTGTCATAGTCACCA AAAGCATCAACAGAGCATAACATTCTTTTTGTTGACAGATTACATTGAGGCAACTTGGCTTTTGGAGTTATCAGG GCTCAGTCTCAAAGGCAGATGCATCAGAGCCAAGACCCGGCCCTCAAGTCCTCCTATTAGGGCAGCACTAGGGCT ACCTCTTTGTCAGCAGAACCTTTGGATAGCCGCTGATGGGGTGAGTCAGCTTTCTGGGCCCGGCAGACCTTTTGG GAATCCCTGGCTTTTGGGGCACAACATCCTGGGGACCACCAAAAAGCCCTTTCACCTGAGCTTTGGGAAAGAGAGA ACAGCTCCGGCTGTGGGTGGCTCATGTCACCATCTGGAAGCCAGCTGGGCCCACAGCAGACGCGTAAGTCCTGTAT TCATTCATCCCCTTCTCCTTTTGGCAGAAAAGGGATGGCGTGGGTTGGAGGGGTGTTTTCCTGGGTTCTTGCACA TCACTGGTCACAAAGCCCTTTGGCATCTACAAGCTCGTTGGGTCCACACAGCAGCTTTGTTAGGTGGGTAGGGGG AGACCAAGGCACCCATCCTACAGGTGGAGAAACCGAGGCTGAAGCTGGGAGGTGAGCCAGTCTCCTGGCTTCCAG GCCCACCTGCCAGCTGGCCCCAGCGGGCATGACTCATCCGCTTCCCCATGACTCACACCTCAGGTGCTCCT CCTCTGGTCAACAAGTCCAGAGACTTGGCAAATGGACCCCCATTTTTCTCACCTCTCCAAAGCCTCTGGGAAGAA

# 3033/6881 FIGURE 2798B

TTCCTGCACCTCCTCTTATGGGGACTCTGCTCTTCTACAGAATAGCAACCAAGGCCTTGAGAGGGAAAGCAACT CTCCTAAAGTCACATAGCAAGCAACCAGCACAGCCAGGGTGGGAGCCAGGCATCCGGGCACCGAGCCCAGTCCCG GCCTCCTCCCTACAAGATCACTCTCGCCTGACCTCCCTCTCAAGGACAGGAAAGGAGCAGAGACGCACTCTGAGC CTTATTAGGAAGACCTCAGGGACTCCCACTGAATCCACTGTGGCTACAGCGGCTGCTTCCACCACTGAAGTCCCC GGCTGTGCAGGGTGAAGAGTGCTGCTCCGTGGGAAGGCGCTGGGACCAAGGCCGAAGCACTGGACAAAGAGAGCT ATGAGCACTACCTGTAAACAAAGGGCÁCAGAATGTCAGCCTCAGGGGGAGTTCAAGGTCATCTGGTCAAATCCCC ATTTGATGTTTCAACCCCTTTCCTCCCCTCCACCAGGGGTCACACAATCAGTACTTGCACACATCCAGCAACACC GCACTCACTACCTGCCAAGGCTGCAAGACCTGCTGCTGGAGGGTTTGGCTGCGTAAAAGAATTGTCCTAAGGATG CACTAAAATCTCTCTCTTATGCCTTGTACCTGCTGGTATTAGCTCTGCCTCCTTTTGGGTCAGCCAGAACAG GTCTGTCCCCCTCTTTCCTGATGGCTCTTTGGAGATTTGAAGACAGTGATCCTGGGCCCCTCAAGTCTTCTACAA ATTGTGCACCCCTTTCCTCCAGCTCTTCCTGAGACCAGGGTTTCCGGTTCGCTCACCCTGTTCCCTGATCTGCT CCAGATGAAACCTGTCCCTACTGACAGCACAAGACCCAGAATTAGACAATCAGTCAAGCTCTATCCAGGACAGGG  ${\tt CAAGCAGGACTCTCACCTCCTTCATTAGAGATATCATGCTTCTATTAATTGAGCCTAAAATCCCATTTGCATTTA}$ AGGCAGCCCTATTGCATGGCTGAATTCAGTTTACAGTCAACTTCAGAGCTGTACGTTAGTACTCTGAAGTTATAT AAACTGGGCCCTCACTTAACTGTGTAACTTGAGCAAGC

GCCAAAATGGGAAAGGAAAAGACTCATATCAACATTGTCGTCATTGGACACGTAGATTCGGGCAAGTCCACCACT
ACTGGCCATCTGATCTATAAATGCGGTGGCATCGACAAAAGAACCATTGAAAAAATTTGAGAAGGAGGCTGCTGAG
ATGGGAAAGGGCTCCTTCAAGTATGCCTGGGTCTTGGATAAACTGAAAGCTGAGCGTGAACGTGGTATCACCATT
GATATCTCCTTGTGGAAATTTGAGACCAGCAAGTACTATGTGACTATCATTGATGCCCCAGGACACAGAGACTTC
ATCAAAAACATGATTACAGGGACATCTCAGGCTGACTGTGCTGTCCTGATTGTTGCTGCTGGTGTTGGTGAATTT
GAAGCTGGTATCTCCAAGAATGGGCAGACCCGAGAGCATGCCCTTCTGGCTTACACACTGGGTGTAAAAAACAACTA
ATTGTCGGTGTTAACAAAATGGATTCCACTGAGCCACCCTACAGCCAGAAGAATATGAGGAAATTGTTAAGGAA
GTCAGCACTTACATTAAGAAAATTGGCTACAACCCCGACACAGTAGCATTTGTGCCAAATTCTTGAAGTCTGGTG
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GCTTTGCTGTTCGTGATATGAGACAGACAGTTGCGGTGGTGTC

CTAAAAGCCAAAATGGGAAAAGACTCATATCAACATTGTCGTCATTGGACACGTAGATTCGGGCAAGTCC
ACCACTACTGGCCATCTGATCTATAAATGCGGTGGCATCGACAAAAGAACCATTGAAAAATTTGAGAAGGAGGCT
GCTGAGATGGGAAAGGGCTCCTTCAAGTATGCCTGGGTCTTGGATAAACTGAAAGCTGAGCGTGAACGTGGTATC
ACCATTGATATCTCCTTGTGGAAATTTGAGACCAGCAAGTACTATGTGACTATCATTGATGCCCCAGGACACAGA
GACTTCATCAAAAACATGATTACAGGGACATCTCAGGCTGACTGTGCTGTCCTGATTGTTGCTGCTGGTGTTGGT
GAATTTGAAGCTGGTATCTCCAAGAATGGGCAGACCCGAGAGCATGCCCTTCTGGCTTACACACTGGGTGTGAAA
CAACTAATTGTCGGTGTTAACAAAATGGATTCCACTGAGCCACCCTACAGCCAGAAGAGATATGAGGAAACTACA
AAATTGGTGGTATTGGTACTGTTCCTGTTGGCCGAGTGGAGACTGGTGTTCTCAAACCCGGTATGGTGGTCACCT
TTGCTCCAGTCAACGTTACAACGGAAGTAAAATCTGTCGAAATGCACCATGAAGCTTTTGAGTGAAGCTCTTCCTG
GGGACAATGTGG

MGKEKTHINIVVIGHVDSGKSTTTGHLIYKCSSIDKRTIEKFEKETAEMGKGSFKYGWVLDKLKAERERGITIDI SLWKFETSKYYVTITDAPGHRDFIKNMITGTSQADCAVPIVAAGVGEFEAGISKNGQTREHALLAYTLGVKQLIV GVNKMDSTEPPYSQKRYEEIVKLVVLVVFLLAEWRLVFSNPVWWSPLLQSTLQQK

ATCGCCCAACAAGCAAATGTCGGGGAGCTTCTTGCCATGCTGGACTCCCCCATGCTGGGTGTGCGGGACGACGTG ACAGCTGTCTTTAAAGAGAACCTCAATTCTGACCGTGGCCCTATGCTTGTAAACACCTTGGTGGATTATTACCTG GAAACCAGCTCTCAGCCGGCATTGCACATCCTGACCACCTTGCAAGAGCCACATGACAAGCACCTCTTGGACAGG CCATCTTGGAAGCATAAGCTCTCTCAAGCACCTCTTTTGCCTTCTTTACTAAAATGTCTCAAGATGGACACTGAC GTCGTTGTCCTCACAACAGGCGTCTTGGTGTTGATAACCATGCTACCAATGATTCCACAGTCTGGGAAACAGCAT CTTCTTGATTTCTTTGACATTTTTGGCCGTCTGTCATCATGGTGCCTGAAGAAACCAGGCCACGTGGCGGAAGTC TATCTCGTCCATCTCCATGCCAGTGTGTACGCACTCTTTCATCGCCTTTATGGAATGTACCCTTGCAACTTCGTC TCCTTTTTGCGTTCTCATTACAGTATGAAAGAAAACCTGGAGACTTTTGAAGAAGTGGTCAAGCCAATGATGGAG CATGTGCGAATTCATCCGGAATTAGTGACTGGATCCAAGGACCATGAACTGGACCCTCGAAGGTGGAAGATTA GAAACTCATGATGTTGTGATCGAGTGTGCCAAAATCTCTCTGGATCCCACAGAAGCCTCATATGAAGATGGCTAT TCTGTGTCTCACCAAATCTCAGCCGGCTTTCCTCATCGTTCAGCCGATGTCACCACCAGCCCTTATGCTGACACA CAGAATAGCTATGGGTGTGCTACTTCTACCCCTTACTCCACGTCTCGGCTGATGTTGTTAAATATGCCAGGGCAG CTACCTCAGACTCTGAGTTCCCCATCGACACGCTGATAACTGAACCACCACAAGCTACTCTTTGGAGCCCATCT ATGGTTTGTGGTATGACCACTCCTCCAACTTCTCCTGGAAATGTCCCACCTGATCTGTCACACCCTTACAGTAAA GTCTTTGGTACAACTGCAGGTGGAAAAGGAACTCCTCTGGGAACCCCAGCAACCTCTCCTCCAGCCCCACTC GATTCTGCAAGACCATGTCTACACAGACAACACCATCTTCTGAATGACAGAGGGATCAGAAGAGCCACCTGGCAGC AAAGGTTCTGTCACTCTAAGTGATCTTCCAGGGTTTTTAGGTGATCTGGCCTCTGAAGAAGATAGTATTGAAAAA GATAAAGAAGAAGCTGCAATATCTAGAGAACTTTCTGAGATCACCACAGCAGAGGCAGAGCCTGTGGTTCCTCGA GGAGGCTTTGACTCTCCCTTTTACCGAGACAGTCTCCCAGGTTCTCAGCGGAAGACCCACTCGGCAGCCTCCAGT TCTCAGGGCGCCAGCGTGAACCCTGAGCCTTTACACTCCTCCCTGGACAAGCTTGGGCCTGACACACCAAAGCAA GCCTTTACTCCCATAGACCTGCCCTGCGGCAGTGCTGATGAAAGCCCTGCGGGAGACAGGGAATGCCAGACTTCT TTGGAGACCAGTATCTTCACTCCCAGTCCTTGTAAAATTCCACCTCCGACGAGAGTGGGCTTTGGAAGCGGGCAG CCTCCCCGTATGATCATCTTTTTGAGGTGGCATTGCCAAAGACAGCCCATCATTTTGTCATCAGGAAGACTGAG GAGCTGTTAAAGAAAGCAAAAGGAAACACAGAGGAAGATGGTGTGCCCTTACCTCCCCAATGGAAGTGCTGGAC AGACTGATACAGCAGGGAGCAGACGCCACAGCAAGGAGCTGAACAAGTTGCCTTTACCCAGCAAGTCTGTCGAC TGGACCCACTTTGGAGGCTCTCCTCCTTCAGATGAGATCCGCACCCTCCGAGAECAGTTGCTTTTACTGCACAAC CAGTTACTCTATGAGCGTTTTAAGAGGCAGCAGCATGCCCTCCGGAACAGGCGGCTCCTCCGCAAGGTGATCAAA AAGGTTAGTCTGCAGAAAGAACAAGCTAGATACAATCAGCTCCAGGAGCAGCGTGACACTATGGTAACCAAGCTC CACAGCCAGATCAGACAGCTGCAGCATGACCGAGAGGAATTCTACAACCAGAGCCAGGAATTACAGACGAAGCTG GAGGACTGCAGGAACATGATTGCGGAGCTGCGGATAGAACTGAAGAAGGCCAACAACAAGGTGTGTCACACTGAG CTGCTGCTCAGTCAGGTTTCCCAAAAGCTCTCAAACAGTGAGTCGGTCCAGCAGCAGATGGAGTTCTTGAACAGG CAGCTGTTGGTTCTTGGGGGAGGTCAACGAGCTCTATTTGGAACAACTGCAGAACAAGCACTCAGATACCACAAAG CAGAAGAATATCTAGAGGATGTCAAACTCCAGGCAAGAGGACAGCTGCAGGCCGCAGAGAGCAGGTATGAGGCT CAGAAAAGGATAACCCAGGTGTTTGAATTGGAGATCTTAGATTTATATGGCAGGTTGGAGAAAGATGGCCTCCTG AAAAAACTTGAAGAAGAAAAAGCAGAAGCAGCTGAAGCAGCAGAAGAAAGGCTTGACTGTTGTAATGACGGGTGC TCAGATTCCATGGTAGGCACAATGAAGAGGCATCTGGCCACAACGGTGAGACCAAGACCCCCAGGCCCAGCAGC GCCCGGGCAGTAGTGGAAGCAGAGGTGGTGGAGGCAGCAGCAGCAGCAGCAGCAGCTTTCTACCCCAGAGAAA CCCCACACCAGAGGGCAGGCCCATTCAGCAGTCGGTGGGAGACGACTATGGGAGAAGCGTCTGCCAGCATCCCC ACCACTGTGGGCTCACTTCCCAGTTCAAAAAGCTTCCTGGGTATGAAGGCTCGAGAGTTATTTCGTAATAAGAGC GAGAGCCAGTGTGATGAGGACGGCATGACCAGTAGCCTTTCTGAGAGCCTAAAGACAGAACTGGGCAAAGACTTG GGTGTGGAAGCCAAGATTCCCCTGAACCTAGATGGCCCTCACCCGTCTCCCCCGACCCCGGACAGTGTTGGACAG CTACATATCATGGACTACAATGAGACTCATCATGAACACAGCTAA

 ${\tt MAQQANVGELLAMLDSPMLGVRDDVTAVFKENLNSDRGPMLVNTLVDYYLETSSQPALHILTTLQEPHDKHLLDR}$ INEYVGKAATRLSILSLLGHVIRLQPSWKHKLSQAPLLPSLLKCLKMDTDVVVLTTGVLVLITMLPMIPQSGKQH LLDFFDIFGRLSSWCLKKPGHVAEVYLVHLHASVYALFHRLYGMYPCNFVSFLRSHYSMKENLETFEEVVKPMME HVRIHPELVTGSKDHELDPRRWKRLETHDVVIECAKISLDPTEASYEDGYSVSHQISARFPHRSADVTTSPYADT QNSYGCATSTPYSTSRLMLLNMPGQLPQTLSSPSTRLITEPPQATLWSPSMVCGMTTPPTSPGNVPPDLSHPYSK VFGTTAGGKGTPLGTPATSPPPAPLCHSDDYVHISLPQATVTPPRKEERMDSARPCLHRQHHLLNDRGSEEPPGS  ${\tt KGSVTLSDLPGFLGDLASEEDSIEKDKEEAAISRELSEITTAEAEPVVPRGGFDSPFYRDSLPGSQRKTHSAASS}$ SQGASVNPEPLHSSLDKLGPDTPKQAFTPIDLPCGSADESPAGDRECOTSLETSIFTPSPCKIPPPTRVGFGSGO  ${\tt PPPYDHLFEVALPKTAHHFVIRKTEELLKKAKGNTEEDGVPSTSPMEVLDRLIQQGADAHSKELNKLPLPSKSVD}$ WTHFGGSPPSDEIRTLRDQLLLLHNQLLYERFKRQQHALRNRRLLRKVIKAAALEEHNAAMKDQLKLQEKDIQMW KVSLQKEQARYNQLQEQRDTMVTKLHSQIRQLQHDREEFYNQSQELQTKLEDCRNMIAELRIELKKANNKVCHTE  $\verb|LLLSQVSQKLSNSESVQQQMEFLNRQLLVLGEVNELYLEQLQNKHSDTTKEVEMMKAAYRKELEKNRSHVLQQTQ|$ RLDTSQKRILELESHLAKKDHLLLEQKKYLEDVKLQARGQLQAAESRYEAQKRITQVFELEILDLYGRLEKDGLL KKLEEEKAEAAEAAEARLDCCNDGCSDSMVGHNEEASGHNGETKTPRPSSARGSSGSRGGGGSSSSSSELSTPEK PPHQRAGPFSSRWETTMGEASASIPTTVGSLPSSKSFLGMKARELFRNKSESQCDEDGMTSSLSESLKTELGKDL GVEAKIPLNLDGPHPSPPTPDSVGQLHIMDYNETHHEHS

GCTCCGGTTGCCTCCGACCTCGGCCGTGGGCGGCCCCGGGCCTGGGGAAGGGGCGGGGGGCGCGGGACCCGATG CGCGGGAGCCGAGATGGCTTCGGCGGAGGCGAAGACTGCGAGAGCCCCGCGCGGAGGCCGACCGTCC GCACCAGCGGCCCTTCCTGATAGGGGTGAGCGGCGCACTGCCAGCGGGAAGTCGACCGTGTGTGAGAAGATCAT GGAGTTGCTGGGACAGACGAGGTGGAACAGCGGCAGCGGAAGGTGGTCATCCTGAGCCAGGACAGGTTCTACAA GGTCCTGACGGCAGAGCAGAAGGCCAAGGCCTTGAAAGGACAGTACAATTTTGACCATCCAGATGCCTTTGATAA TGATTTGATGCACAGGACTCTGAAGAACATCGTGGAGGGCAAAACGGTGGAGGTGCCGACCTATGATTTTGTGAC ACACTCAAGGTTACCAGAGACCACGGTGGTCTACCCTGCGGACGTGGTTCTGTTTGAGGGCATCTTGGTGTTCTA CAGCCAGGAGATCCGGGACATGTTCCACCTGCGCCTCTTCGTGGACACCGACTCCGACGTCAGGCTGTCTCGAAG AGTTCTCCGGGACGTGCGCCGAGGGAGGGACCTGGAGCAGATTCTGACGCAGTACACCACCTTCGTGAAGCCGGC CTTCGAGGAGTTCTGCCTGCCGACAAAGAAGTATGCCGATGTGATCATCCCGCGAGGAGTGGACAATATGGTTGC CATCAACCTGATCGTGCAGCACATCCAGGACATTCTGAATGGTGACATCTGCAAATGGCACCGAGGAGGGTCCAA TGGGCGGAGCTACAAGCGGACCTTTTCTGAGCCAGGGGACCACCCTGGGATGCTGACCTCTGGCAAACGGTCACA AGGGACTGAGCCTGGGGACGCCCACCCACACCCACTGCTTCCTCTCGGCGCACCCCAGGGGAGTGTTAGCAGCGA GGCCTTCCTCACTCAGGAGTGGAAACTCAGATGTGTCACTCAGACTCAACTTGCTGGGACACTGACAGGCGTTCC TGAGGTTTTCAGCCACTTAGGCTCGTTGCGGTTTAAAGATCCCTCTAGGTCACTGAGAAATGCCACAGAATGTGC AGGAAGCCTGGGAGGCTTCTGTGAGGAATGTGAGGCACATTATTGGGGAAATTGAGGAGACAGCCTAGACACTGG TCACACATAACTCAAAAGTTTTGTGAACAAGTACTTTCCTTTTTTACATGTTACATGTCCTCATGTTTTCTGT TTTCTGTTTCATAACACAAGGCTGGTTGTGGCCTACAAACCTAATTTCATGACCCAGTGGTTTGCAGTCCAGCGT AAGGCAGCGGAGGCCAGGTCTGTCCCGGCTGGAGAACAGCGTCCACGCAGTCCTGGCGTCAGGCCCTCACT GACCCTCAGGGGAGCCCCCAAGGTGCTGTCTGTCTAGACAGGCTGTCCCACCCCAGGGTGGCTAGTGGCCATATG CAGGGAATGGTGCTTCTGGCTGTGGCACGCACTGGATCACCCAGGTCCCAGCAGACATGGCCGCCCAAAGTCAGC AAGCCTCCTTTGTGCTATGTGGAGCTCACAGCCTCACATGTGAACACCCGTGTCTGGGGTTGCCTGGGGTGATCCT GGCTCACCCACAĢTAGTGATGCAGACGTGACGTGGGGGAAGGGGGCTGAGCCCTGTGGCTGGGTTCTGACAACTG 

#### 3044/6881 FIGURE 2809A

TGAACAGGGAGAGCCATGAAACAGTTTGACCTGAACTATGGAAGTGCCATCATTGAAAATTGCGGGTCCAGCCC  $\tt CGGGGAGGAGGTGAGGTGGGTTCTATGGTGGGCGAAGGCTTCATCGAAGTCCTGACCAAGAAGCAGCGCCGCCT$ GCTGGAGGAAGAAGAAGAAGAAGGACCAGGCCGTGCAGGTGCCTGTCAAAGGTCGAGGCCTTTCCTCCCGTAT TCCTCCTCGATTTGCAAAAAAGCAGAACAACTTATGTCTGGAGCAAGGTGACGTGACCGTGCCTGGCAGCAGCCT GGGCACTGAGATCTGGGAGAGCAGCCAGGCTCTCCCTGTGCAGGCCCAGCCAACGACTCCTGGAGGAAAGC TGTCACTGCCTTCAGCAGCACCGAGACTGGCTCTGCGGAGCAGGGTTTTAAGAGCAGCCAGGGAGATAGTGGCGT TGACTTGAGTGCCGAGTCTCGGGAGTCGTCTGCGACCTCCTCGCAGCGCAGCTCCCCATATGGGACTCTGAAGCC AGAGGAGATGAGCGGCCCGGCCTGGCGGAACCCAAGGCCGACAGCCACAAGGAGCAGGCTCCAAAGCCATCTGA  ${\tt GCAGAAGGATTCAGAACAAGGCTCTGGACAGAGCAAGGAGCACAGACCAGGCCCATCGGCAACGAGCGTTCTCT}$ GAAAAACAGAAAGGGCTCGGAGGGGGCCGAGCGCTGCCAAGGGGCTGTCGTCCCCGCCTGTTAACGGGGTGGAGAT TCACGTGGACTCCGTGCCTGTGCCACCCATTGAATTTGGAGTCAGAAAAGACTCCGATTTCAGCTTGCC ACCTGGTTCTGCCTCTGGTCCTACTGGGAGTCCAGTTGTTAAACTTCAGGATGCCTTGGCCAGTAATGCAGGGTT AACACAGAGTATCCCCATCCTGCGGCGGGACCATCACATCAGAGGGCCATCGGTCTCTCCCCAATGTCCTTCCC CACCGCCGACCTTACTCTGAAGATGGAGTCTGCGCGCAAGGCTTGGGAAAACTCCCCCAGTTTGCCGGAGCAGAG CTCTCCAGGCGCCTCGCTCAGCCATCCATCCTCTGTGGGTGCCTCCAGCGGGGTCAACTACAGCTC CTTCGGTGGAGTGTCCATGCCATGCCTGTGGCCTCTGTAGCACCTTCTGCTTCTATGCCAGGCAGCCACCT GAGTTACCAACAGGCCGCCGCTGCCCAGCAGATCCCGATCTCCCTTCACACATCTCTGCAGGCACAAGCTCAGCT TGGACTGAGGGGTGGCCTTCCTGTGTCCCAGTCCCAGGAGATCTTCAGCTCCTTGCAGCCCTTCAGATCTCAGGT GTACATGCACCCCAGCCTGTCACCGCCCAGCACCATGATCCTCTCTGGGGGCACAGCCTTGAAGCCTCCATACTC GGCGTTCCCAGGCATGCAGCCCTTGGAGATGGTGAAGCCGCAGTCTGGCTCACCCTACCAGCCCATGAGCGGGAA CCAAGCCCTGGTCTACGAGGGCCAGCTCAGCCAGGCTGCTGGCCTGGGTGCCTCCCAGATGTTGGACTCCCAGCT GCCACCTGGGCAGAGCCTCTCCGTTGGGGCCCCCGAAGGATTCCTCCGCCCGGGTCCCAGCCGCCAGTCCTGAA CACCAGCAGAGAGCCCTCTCAGATGGAGATGAAAGGCTTCCACTTTGCCGACAGTAAACAGAATGTCCCTTCAGG AGGCCCCGTGCCATCGCCACAGACCTACAGGCCTAGCTCTGCTAGCCCCAGTGGGAAGCCCTCTGGATCAGCAGT TAACATGGGCTCTGTGCAGGGACACTACGTGCAACAGGCAAAACAACGAGTGGATGAGAAACCCAGCCTGGGAGC CGTGAAGCTGCAGGAGGCCCCCTCGGCTGCCTCCCAGATGAAGCGAACCGGAGCGATCAAGCCTCGGGCTGTCAA AGTGGAGGAGTAAGGCCTGACAGTGCCTGGCTGCCACCTCGCCTACTGAGGACGGTGCCGCCATGCG GCCTCGACACACCCGACACTCGGGAGCCTCACCAGATCCACCGTCCAAATGCGTGGCCCAGACTGAGAGACCTCC GATACGAAACAAAAAGCAGACGCCTTCATCCCATCTGCTCCTACCGTGACTGTGGAGTGACGCCTCCTGTG CAGTGCAGATTTGCCCTCCCTGCCTCCCTGTCCTGCCGCGCAGCCAGGCGCCTTCTCAGCAGTGCTTCCGG AGCCAAGGTTTTTACAAAGGGGAAAGGAAAAGAAAACGCAAGCTCCATGTGTATAGCTGAACTTTTATA TGTTTCTTGCCAGCCCCTCCGCTCCCTTCCATCTCTAGCCTCTGTTTTAGTTTGATACGTCACTGCAGTAC CTTAAGAGGTGACTCTTAAGAATGCATCCCCTCCTGATTCCTCAGCTGGTTCACCCTTGAGGTTATTTGCAAAAA GAAAAGGAGGTTCTTGAGGGCACCGATTGCGAGCATTCTGGTGCCTGGCTCCCCGCCTGGGAAGCGATGGGGTGC TCAGAGCAGCAGGTTGGGGGAGGGGGGGGTCATAGTTGGGTTCCAGCTCCTGGCTTGATGAGCCCAGGGC GCTTACAGGCAGCCCATGAAGTTGATGACAGTTTTAGCATGAGAATCACACAGGGTCCCTGTCCTGGGCTCCTCT AAAGCCAGTGGATGTGCTGGGCACCAGAGACAAATCATGGAGATGGCTGCTGGTGGCTCCCAGGTTGGCCCAGAT GGGGTGAGCTGACATACCACAGGCCCATCCCAGGCCCCGTGGGCTCTGCTTCTGGGGCTCCATACCCTGCCCTGC GGAGCCTGCTTCTCTGGACCTGTCTCCACCTCCCACACAGCTCATCGTGAACACCACTTGGTGATGGAGGG AGTGGACCCGTGTGTGCTCCCAAGTGAGGCCACTGGGAGTTTGTCCTTTTCCTTCTTTGCTTCACTCCCAGCAG CAGACCCAGGTTGTCAGGACAGGACGGCCTGAGCTAAGCAGTAGGCATCAGTCTCGTTTGTCTTCAGACGGCGGG GGCAGGTCCAGGGTGAGGCTGGAGGGCTGACCAAGGTCCAAAGGGCCTGCGCAGCCTCCGGGAGGGCAGCT 

#### 3045/6881 FIGURE 2809B

ATTCTGTCATTCCAAGGAAAGGGAAGGGGACAGTTCAGGTTTCTCAGCTGTTCTTAGGGGTCACTGAGCGTCTAC TTCAGCGTCTCACGGGTGCAGGACAGCGCTCAGGCTTGGGCTCTAAGCTCTGTGTCTAGTGTAGAACATGGGGAA GGAGCATCTTAGGAACTGCTGAAGTAACTTCTTACTGCTCTCACAATTCTAAGGAAGCGGGAGAACGGCCTCCTA CCAACAGCGCCCACCCCAGAGCTGCCTGGGAAAGGGCAGTTTTACTGAAAGGTGCTTTACTGTTCACCTGCATCT TTCAGCAGCTCCCCTCCTCCCCCCCCCCCCTCTTTTCCCCTCTTTATCCCAAGCCTTTATGCTTGAGTCCCTTCCC CAGGGGCTGCCCACCCGACAGTTCCAGGCATTCCCTACCTGAGCTTCTTGTCTGCTTTTCCTTCTCCCACTGCAA GCGGCTGCTTGTGGGGGCCTGGGATGAGCCCTCTCTGTCCCCACCGGCCCTCCTTGCCAAGCCATTCCTGGGTGAG TTCAGGCCTGCGGGAGCCACACTTCATCTCCACCTGGACACTTGAGCCGCATGGCCAGACCCCTCCCACCTGAT GCGGTGGTGCGTGTGATTTGTCAAAAGAAAGCCTTCTGGATGCTGTTAAGATGTACCCTTCAGGTGAACCTGGTA TCAGACCCACAGTACTTGCTGTTTGAGAAAAAATAAAAACAAAAAGGTCACCTGTTCTCCAGCCCTTTTCTCTTA TCTCTTCGCTGAGATGCAGGTTTTAAATGAGACTTGGGGGGGCTGAGGCCTCAGGCCTCCCAGCGCCCCAA CCCCTCCTTGGTCTAATGAAATGCAGTTCTTAGTGCAGAGATGTTTTAAGGTGCAATATATCTCTTCCCTTTCCCG TGGTTTTAGAGCCAAGCTCAAGGTAGTAGGACGTAGGGTCTTATTTTGTTTTCAAACCCCCATCCTCAGAGCGCA GATACATGCAGAGGCTTCTGCCAGGATACCACGGGGCCTTAGTGGGAACAGGTGGAGACCAGCACTTCCCTTTCC GCTCTGCCTTGGTCACTGGGGATGCGGCTCGTTGCTCAGCCACCAGTGGCCTTGCGGTATTGTCCACCATCCACT AGAGTGGGATGAAGTCCAGAGTGTGGGTATACATCTCAGATGCCCATCTACCCACTGGGGACTTCAATGCCAGCT TTTCAAACTTGGAATTCATAGACACTCTGGCTCTAGGTTCCTTAAGGGGGAAAACAAAAGATGACTTTATTTCAC ATTCAAGAAAATCAGTTCAGATCCAAAGCTGTGGTCCTTCCAGCCACTTCTAGGGACACTGGGGAACCTTGTTAA ACGTTGACATCAGTGCTCTCCAGCCGTGCTGTCACCCTCCTATCTTCTGGATCTGCCTTCGCGATGGTCAGTGAC AGCTTCTGGAAGCTGAGCACACACGGTGCACAGCCATGCTGTGGTCTGGCCTGCTACGGCAGCATGGCAGCTCT GGTGGAGCCTTCTCCCTTGCCATTTGGTTCCCCTGTGCCAAGTAGCTGCAGGCTGCCCCTCAAATCTTCATTTGT CCCTTTTCACTTCCTGCAGAACAAGCCTGGGTTAGAGGGTCTGCTGGAAATGGCCTTTGAAGACCAAGGATACCA GGATGTGTGCACTCTGTCGTGTTCTGTGATGAATGGGAAACGTAGGCTTCCAGAAAGCCAGCTCTCTTCTGAAAT GTGACGGACCTAAGCAGGAAGTCATCCAGGACAGGACTGGCTCAGTGTTGGGGATGGACGCTGTCGCCCAGCCAT GCTCCACCAGGGCCACCAATGTGTAGTTGGCTGGTGGTCTTCGGGCATGTGAGACCTGCTCTTCACTGTTTCCAC CCCACTTGGTGGCCTCCAGGATGGTAGTGGCACCCTCAGAGCCCCATCTTCAGCATGTTCTGAAGCCTCAGAGTG GAAATTCCTGCTAAGGCTCTGTGTGGACGCCTTTCTCCCGTGATCTAAAGGGGACACTGTACTCAAGCTTTTGAC CCTTTTGTTTATGTTTTGGCCTTTCCTCTTTGTCTTTCCATGTAGACCAGATATTTGAAAGGGCAGACGATGGCT AGAGGTGTAATGTGCAGCTTGTTTATACGGTATTTTGGGAAACTTACCTTGGATGGGAAATCGAATCGTGGATTC ACCAGGCCGGTGCTGGCACACTCACCCTCGCCCTTTCCCTCCGGTTCAGTACCTATTGTTTCTCCTTTCAAATAT 

MKQFDLNYGSAIIENCGSSPGEESEVGSMVGEGFIEVLTKKQRRLLEEERRKKEQAVQVPVKGRGLSSRIPPRFA
KKQNNLCLEQGDVTVPGSSLGTEIWESSSQALPVQAPANDSWRKAVTAFSSTETGSAEQGFKSSQGDSGVDLSAE
SRESSATSSQRSSPYGTLKPEEMSGPGLAEPKADSHKEQAPKPSEQKDSEQGSGQSKEHRPGPIGNERSLKNRKG
SEGAERLQGAVVPPVNGVEIHVDSVLPVPPIEFGVSPKDSDFSLPPGSASGPTGSPVVKLQDALASNAGLTQSIP
ILRRDHHIQRAIGLSPMSFPTADLTLKMESARKAWENSPSLPEQSSPGGAGSGIQPPSSVGASSGVNYSSFGGVS
MPPMPVASVAPSASMPGSHLPPLYLDGHVFASQPRLVPQTIPQQQSYQQAAAAQQIPISLHTSLQAQAQLGLRGG
LPVSQSQEIFSSLQPFRSQVYMHPSLSPPSTMILSGGTALKPPYSAFPGMQPLEMVKPQSGSPYQPMSGNQALVY
EGQLSQAAGLGASQMLDSQLPQLTMPLPRYGSGQQPLILPQSIQLPPGQSLSVGAPRRIPPPGSQPPVLNTSREP
SQMEMKGFHFADSKQNVPSGGPVPSPQTYRPSSASPSGKPSGSAVNMGSVQGHYVQQAKQRVDEKPSLGAVKLQE
APSAASQMKRTGAIKPRAVKVEESKA

 $\tt CTCACCTCCGGAGGCTCTGCTGGTGCAGGCCCCGCATTGGAGGGCTCGATTGGCTGCCCGGCTGGCACTGACGT$ CCCCTTGGAGCTGGGTGGCAGAGGAGATAAACAGCCATGTGCAACTCTCCACACTATATTTAACAGCTGCGGCGG AGAAGGCAGGGAGGCAGCCACGGTGGCGGCTCTGGGGGCAGCTCTTGTCTTCGGGGAGAAGGCCCTTGGAGCCGG GCTGGCATCGGCCTTCTCGGGGTGAGCGAGGTCACCATGCCAGCTTCCCAGAGCCGGGCCCGTGCCCGGGACCGC AACAACGTCCTCAACCGGGCTGAGTTCCTGTCCCTGAACCAGCCCCCCAAGGGGGGCCCGGAGCCCCGCAGCTCG GGCAGAAAGGCCTCGGGCCCATCAGCACAGCCCCCACCTGCTGACGGGGCCAGAGAGCGACGCCAGTCACAG CAGCTGCCAGAGGAGGACTGCATCCAGCTGAACCCCTCCTTCAAGGGCATCGCCTTCAACTCCCTGCTGGCCATC GATATCTGTATGTCCAAGCGGCTGGGGGTGTGCGCTGGCCGGGCGGCGTCCTGGGCCAGTGCCCGCTCCATGGTC AAGCTCATCGGCATCACGGGCCACGGCATCCCCTGGATCGGAGGCACCATCCTCTGCCTGGTGAAGAGCAGCACA CTGGCCGGCCAGGAGGTGCTCATGAATCTGCTCCTGGCCCTGCTCCTGGACATCATGACGGTGGCCGGCGTGCAG AAGCTCATCAAGCGGCCGGCCCGTACGAGACGAGCCCCAGCCTCCTGGACTACCTCACCATGGACATCTACGCC TTCCCGGCCGGGCACGCCGCCGCCCCCATGGTGTCCAAGTTCTTCCTCAGCCACCTGGTGCTGGCGGTGCCC CTGCGTGTGCTGCTGGTGCTCTGGGCCCTCTGCGTGGGCCTGTCCCGCGTGATGATCGGCCGCCACCACGTCACG GACGTCCTCTCCGGCTTTGTCATCGGCTACCTCCAGTTCCGTCTGGTGGAGCTGGTCTGGATGCCCTCCAGCACC TGCCAGATGCTCATCTCTGCCTGG**TGA**AGCGCCCGCCGGCCCACACAAGCCTCTGGGGGCAGGGCTGGCCCTAGA GAAGGGGCAGGGGTGGCGAGGTGGCGGGCGTGGGTGGAACAGAGCGGCCAGGAGTCAGAGCGGCCACCCCCACC TCATCTTCCCCTCCTGGCTGGAGGCTGGCGAACCCAGGCCACCCCTCCCGGAGACAAGCGTGTTTGGCAGTGCCA TTAGCTTCTGCTCTGGGAACAGCAAAAATCAGGATGGTGGGAGGGGCCGAGTCTTGTCTTGTCCTTTCATCATCA TGACTGTTGAGTTCTTGGCTGTGCCCATCACGCCACGACGACGCCTGCCAAAATGCCCCCAACCTACTGCCTG ATGCAGGTGCCATTGCCGTTAGCGGTCATCGACAGCTTAGGGCAGCACTTTCCAACGGGTGCCCATGGGACACCA GCCTGCGAGATGCTTTTGGGGGAAAGGGGTTTTGTGGTTCAATAACTTTCGGAAGTGCTGCACACTCTGTCCCCA AGTTGGACATTCACAAAGGCCGTTATTGCCGTAAAGGCTCTGACAAGCCCTATAGAAAAGCTTCTTGCTAAACCT TCTTTAACCCATGTTTTCTAAACTTATTTGACCACAGAACCCTTTTCTTGGGGAACAGCTATTAACCCCCAAGGA ATTATTGGTTCCTCAAGTGCGTTTTGGGAGCTGCCAGAGAGCCTAAAGGGCCTGGGGTGTGAGCTGACTCTCC TCTGGGGAGGCCGGTGCACACGCCACAGCCCGAGGAAAGTGCTGGCCACCGCCCGTGGGCATCGATGAGGCTTT GGCCCCCAGGGGCCGGACTCCGTGTGACCTAATAGGTCGTTTCCAAGTCACCCGTTTTGGATGTGCATTTCATGT GACAATACAGATGACATGCAAATGG

MQLNPSFKGIAFNSLLAIDICMSKRLGVCAGRAASWASARSMVKLIGITGHGIPWIGGTILCLVKSSTLAGQEVL MNLLLALLLDIMTVAGVQKLIKRRGPYETSPSLLDYLTMDIYAFPAGHASRAAMVSKFFLSHLVLAVPLRVLLVL WALCVGLSRVMIGRHHVTDVLSGFVIGYLQFRLVELVWMPSSTCQMLISAW

GGCCAAGGGATTGCTGCAGCCCTCATCCACCTTCCAAGCACTGGAAACAACATTGGAGACCAAGGTCTCCAGAA
GCTTCCACTGACTGCTGTTGGCTGCACCAGGCAACAGGGTCTGGCTCTGTCACCCAGGCTGGAGTGCAATGGTAT
GATCTCGGCTCACTGCAACCTCTGCCTCCCAGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGAT
TACAGGTCCAGCTGGGAGCTCCCCGACCTCCAGGAGGGCAAGATCCAAGCCATCAGCGACTCGGATGGGGTGAAC
TACCCCTGGTACGGCAACACCACAGAGACCTGCACCATCGTGGGCCCCACCAAGAGGGGACTCCAAGTTCATCATC
AGCATGAATGACAACTTTTACCCCAGCGTCACCATGGGCCGTGCCCGTCAGCGAGAGCAACGTGGCCAAGCTCACC
AATATCTACCGGGACCAGGACCACCACCTGGCTGGTGGCCAACACCTCCACCAACGACATGATCATCCTG
CAGACGCTGCACTGGCCATGCAGCTCAGCATCGAGGTGAACCCCAACCGGCCCCTGGGCCAGCGCCCCGGCTC
CGGGAGCCCATCGCCCAGGACCAGCCCCAAAATCCTGAGCAAGAATGAGCCCATCCCGCCCAGCGCCCTGGTCAAG
CCCAATGCCAACGATGCCCAGGTCCTCATGTGGCGGCCCCAAGTACGGGCAGCCCTTGGTGATCCCGCCCAAG
CACCGGTGACACGACCAACCCCCCCTAGGTTAGACTCACAAATAATA

 ${\tt MNDNFYPSVTWAVPVSESNVAKLTNIYRDQSFTTWLVATNTSTNDMIILQTLHWRMQLSIEVNPNRPLGQRARLR} \\ {\tt EPIAQDQPKILSKNEPIPPSALVKPNANDAQVLMWRPKYGQPLVVIPPKHR} \\$ 

# 3051/6881 FIGURE 2815A

GCTTCAGGTCAAATTAGGGCTTTGGGTCAAATCAGGGCTACCTGGTCTGGGAGAGGCACACTTCTAACTGCTGAT GCCACCCTCAAAGGGTCTCCAGAAGCTTCCACTGACTGCTGTTGGCTGCACCAGGCAGTGAGTATCAGTACATTT AATCATCACAAAAACCGGGCAGGCAGATGTTGGCGGATTGTCTGTGGGCTGCTGAAGAGCTGGTAGAGCTCAGCG CGTCTGTGACTGGACCACAGTGCGAGTAGCTGGGGCTGACAGTGGACCCTGGGCTGCTGCACCCGCTGCAACCCC CAGGTGGAGGGATCCACGCAGCCTGGTGACGATTTGGCCCTGGCCCTGAGCCATGCCCCGCGTGACGCAGTGCTG TCTGCCAGCCTGGGAGGCTCCTCACCTGTCTTTGCCTGAGCCAGGGCCTGGGAGTTTCAGGACTGGGAAAGGAAA GAAAACCCCAAGGCTGGGGTCAGGAAGAGGGGGCTATTTTGCTGCTCAGTCCTGCTCCCCCAAACCAGACCTTC AGCTCTTTGCAAACGAAAGAGGGGGCAAGGCCAAAGCGGGGTTCCTTATGCAAGTTTGCTTCCTGCCCTGAAAAA CCAAAAAAACGGAAAACTTTTCCAAGCAAGTGTAAGCACTGTGTGAGGACAGAGTGGGCGTTTCCTTCTGAAATA CACCTGTTGTCATCCTGCCTGCTGCTGGGGGCCCCCCTAGATCTTAGGAATTGCTGGGTACTTCCGGACAGTG AGGTTGTCTGAGCTGCCTGCAGGTTCCCTGAGTCTGGGTACTCAGGGGCTGGGCAGGAGATGCCCATTAAGCAGG TGTTACTCTAATGAGTGAGCTTTTCAATGAGATGAACAGGAAAATTAGCAAAATCATGTTCCTAATCATTCCTCC TGCGGCGGCCCCAATTTTGCTAACTGTTAACATTATATGATGCATAAGTAGGGGAATGCATTTTTAAAATTATGG GGCTCTGTCACCCAGGCTGGAGTGCAATGGTATGATCTCGGCTCACTGCAACCTCTGCCTCCCAGGTTCAAGCGA ACATTCCATTGTCCAGCTGGGAGCTCCCGACCTCCAGGAGGGCAAGATCCAAGCCATCAGCGACTCGGATGGGG TGAACTACCCCTGGTACGGCAACACCACAGAGACCTGCACCATCGTGGGCCCCACCAAGAGGGACTCCAAGTTCA TCATCAGCATGAATGACAACTTTTACCCCAGCGTCACATGGGCCGTGCCCGTCAGCGAGAGCAACGTGGCCAAGC TCCTGCAGACGCTGCACTGGCGCATGCAGCTCAGCATCGAGGTGAACCCCAACCGGCCCCTGGGCCAGCGCGCCCC GGCTGCGGGAGCCCATCGCCCAGGACCAGCCCAAAATCCTGAGCAAGAATGAGCCCATCCCGCCCAGCGCCCTGG TCAAGCCCAATGCCAACGATGCCCAGGTCCTCATGTGGCGGCCCAAGTACGGGCAGCCGCTGGTGGTGATCCCGC CCAAGCACCGG<u>TGA</u>CAGCCAGGACCACCCGCTAGGTTAGACTCACAAATAATAATACCGCTGAAAAACAAAACTCA GACTCACTCTTCAGTCATTCAGCAAGATACAACCATTCTACCCTCTCCAGCGGCGGATCTCACTGTGCTGATGC CCCCACGTGCGCCCTCAGGGTGACCTCTGGTCTCCTTGCCTCTCTTTTTCTCAGTTTCAGTCGCTCACTTGTAA CAGATTCCCTGAAACACTGCTTTTTCCGTTTTTTAAAAAAACTCCTCTTTTGGGGGCTCAGGGGCAGGAGGAGGA GGAGCTGATTAGGAGGGAAGCTCCAGCCCCCGATCAAAGAGACAGATCCACACTGCTGCCGATTTGTGGCGCTGG CCGGCCTTCCCCCCAGGTCCCTCCGCCCTCTGTCATGCGGCCTTATGTAGACTTGCTTTGCCAAACTTTTGCCTT GCCAGAGGTGGAGGGAGGGTTGGGGTCGCCCGCGAGAGTCTCTTGAGCCCTTCTTCCCGGTTGTCTTGGGAGAAG TCTGCCTGAACAGCCCCTTCTCTCCCTCCACCCCCAGGTCGTATCCCTGCACCTGCGGAGAGGGGCTGTGAGCTC TGGCGGGGGGTGGCTCCACCAGTCGCCTGGCCTCTTCTCCCCTCTCTCCCAGCAGCCTTAACTTCCCTTGGGCG CCAAGACAGGGCTCGTTCTCAGGGGCGCCCCTCCCAGGCCCTCAGGGCAGCGGGACGGTGCAGTCAGGCTCTGGG TGCCACAGTGATGGAGGTGGAAGGCACCCAAGCTCTAGGGAAGTCTTGGGAGGCAGTCGGCCGAGCCCCTGCTTC ACTCTGGAGGCTGGCCACAGTGGAGAGCAACAGGTGAGGACAGACGTCTGGAAGCCCATCCCTGGGACCTG TGTCGGCCTTGTGGCCACTTGCAGGGGCTATTAGGGGACATCCCGCTGAAGCCACGCTCCTTCCAGCTTGCCAAA CCCACAGCTACCCGCCCGGGACCCACACTCAGCCTAATAATTATCAAGCACAGAAAACCGTCCATTTAGAAAAAT AATCCATTTCTGCTGCAGATGAGCCACTTGTAAGAGTCTCCGTGACAGCGTGGGACGGTGTGGGAACCAAAGTCC

## 3052/6881 FIGURE 2815B

 ${\tt MNDNFYPSVTWAVPVSESNVAKLTNIYRDQSFTTWLVATNTSTNDMIILQTLHWRMQLSIEVNPNRPLGQRARLR} \\ {\tt EPIAQDQPKILSKNEPIPPSALVKPNANDAQVLMWRPKYGQPLVVIPPKHR} \\$ 

#### 3054/6881 FIGURE 2817A

AGGGGAGGAAGTTTGCTGTCGAGCGGCCTGGGTTCCGTGGGCAAGGCCGTGGGAGGCAGCGTTGGCTGCTTCGAC ACACTGAGGGCGGCGCGATGGGAGACGAGATGGATGCCATGATTCCCGAGCGGGAGATGAAGGATTTTCAGTTTA CCAACAAATATGGTCTGGTCTCGCTGGTGGAGCCAGTGGCTTGCAGATTTTTCCTACTAAAAATCTTCTTATTC AAAATAAACCCGGAGATGATCCCAACAACATAGTTGATAAAGTCCAAGGCTTGCTAGTTCCTATGAAATTCCCAA TCCATCACCTGGCCTTGAGCTGTGATAACCTCACACTCTCTGCGTGCATGATGTCCAGTGAATATGGTTCCATTA TTGCTTTTTTTGATGTTCGCACATTCTCAAATGAGGCTAAACAGCAAAAACGCCCATTTGCCTATCATAAGCTTT TGAAAGATGCAGGAGGCATGGTGATTGATATGAAGTGGAACCCCACTGTCCCCTCCATGGTGGCAGTTTGTCTGG TAACCTCTGTGTGCTGGAGCCCCAAAGGAAAGCAGCTGGCAGTGGGAAAACAGAATGGAACTGTGGTCCAGTATC TTCCTACTTTGCAGGAAAAAAAAGTCATTCCTTGTCCTCCGTTTTATGAGTCAGATCATCCTGTCAGAGTTCTGG ATGTGCTGTGGATTGGTACCTACGTCTTCGCCATAGTGTATGCTGCTGCAGATGGGACCCTGGAAACGTCTCCAG ATGTGGTGATGGCTCTACTACCGAAAAAAGAAGAAAAGCACCCAGAGATATTTGTGAACTTTATGGAGCCCTGTT ATGGCAGCTGCACGGAGAGACAGCATCATTACTACCTCAGTTACATTGAGGAATGGGATTTAGTGCTGGCAGCAT CTGCGGCTTCAACAGAAGTTAGTATCCTTGCTCGACAAAGTGATCAGATTAATTGGGAATCTTGGCTACTGGAGG ATTCTAGTCGAGCTGAATTGCCTGTGACAGACAAGAGTGATGACTCCTTGCCCATGGGAGTTGTCGTAGACTATA CAAACCAAGTGGAAATCACCATCAGTGATGAAAAGACTCTTCCTCCTGCTCCAGTTCTCATGTTACTTTCAACAG ATGGTGTGTTTTGTCCATTTTATATGATTAATCAAAATCCTGGGGTTAAGTCTCTCATCAAAACACCAGAGCGAC TTTCATTAGAAGGAGAGCCCAAGTCACCAGGAAGTACTCCCACTACCCCAACCTCCTCTAAGCCCCAC AGAAACTGGATGCTTCTGCAGCTGCAGCCCCTGCCTCTCTGCCACCTTCATCACCTGCTGCTCCCATTGCCACTT TTTCTTTGCTTCCTGCTGGAGCCCCCACTGTGTTCTCCTTTGGTTCTTCATCTTTGAAGTCATCTGCTACGG TCACTGGGGAGCCCCCTTCATATTCCAGTGGCTCCGACAGCTCCAAAGCAGCCCCAGGCCCTGGCCCATCAACCT TCTCTTTTGTTCCCCCTTCTAAAGCCTCCCTAGCCCCCACCCCTGCAGCGTCTCCTGTGGCTCCATCAGCTGCTT CATTCTCCTTTGGATCATCTGGTTTTAAGCCTACCCTGGAAAGCACACCAGTGCCAAGTGTCTCCCAAATA TAGCAATGAAGCCCTCCTCCCACCCTCAACCTCTGCTGTCAAAGTCAACCTTAGTGAAAAGTTTACTGCTGCAG CTACCTCTACTCCTGTTAGTAGCTCCCAGAGCGCACCCCGATGTCGCCATTCTCTTCTGCCTCCAAGCCAGCTG CTTCTGGACCACTCAGCCACACCTCTCTCAGCACCACCTAGTTCCGTGCCATTGAAGTCCTCAGTCTTGC CCTCACCATCAGGACGATCTGCTCAGGGCAGTTCAAGCCCAGTGCCCTCAATGGTACAGAAATCACCCAGGATAA CCCCTCCAGCGGCAAAGCCAGGCTCTCCCCAGGCAAAGTCACTTCAGCCTGCTGTTGCAGAAAAGCAGGGACATC AGTGGAAAGATTCAGATCCTGTAATGGCTGGAATTGGGGAGGAGATTGCACACTTTCAGAAGGAGTTGGAAGAGT TAAAAGCCCGAACTTCCAAAGCCTGTTTCCAAGTGGGCACTTCTGAGGAGATGAAGATGCTGCGAACAGAATCAG ATGACTTGCATACCTTTCTTTTGGAGATTAAAGAGACCACAGAGTCGCTTCATGGAGATATAAGTAGCCTGAAAA TGCATTTGCTTTATAAAAGACCACTGGATCCCAAGAGTGAAGCTCAGCTTCAGGAAATTCGGCGCCTTCATCAGT ATGTGAAATTTGCTGTCCAAGATGTGAATGATGTTCTAGACTTGGAGTGGGATCAGCATCTGGAACAAAAGAAAA AACAAAGGCACCTGCTTGTGCCAGAGCGAGAGACACTGTTTAACACCCTAGCCAACAATCGGGAAATCATCAACC AACAGAGGAAGAGGCTGAATCACCTGGTGGATAGTCTTCAGCAGCTCCGCCTTTACAAACAGACTTCCCTGTGGA GCCTGTCCTCGGCTGTTCCTTCCCAGAGCAGCATTCACAGTTTTGACAGTGACCTGGAAAGCCTGTGCAATGCTT TGTTGAAAACCACCATAGAATCTCACACCAAATCCTTGCCCAAAGTACCAGCCAAACTGTCCCCCATGAAACAGG CAGCCTTTCTGTCTCAGAGATATTATGAAGACTTGGATGAAGTCAGCTCAACGTCATCTGTCTCCCAGTCTCTGG AGAGTGAAGATGCACGGACGTCCTGTAAAGATGACGAGGCAGTGGTTCAGGCCCCCTCGGCACGCCCCCGTGGTTC GCACTCCTTCCATCCAGCCCAGTCTCTTGCCCCATGCAGCACCTTTTGCTAAATCTCACCTGGTTCATGGTTCTT CACCTGGTGTGATGGGAACTTCAGTGGCTACATCTGCTAGCAAAATTATTCCTCAAGGGGCCGATAGCACAATGC CAGCACTCAGGCGGCAGATGGCCAGTCAGGCACCAGCTGTAAACACTTTGACTGAATCAACGTTGAAGAATGTCC CTCAAGTGGTAAATGTGCAGGAATTGAAGAATAACCCTGCAACCCCTTCTACAGCCATGGGTTCTTCAGTGCCCT ACTCCACAGCCAAAACACCTCACCCAGTGTTGACCCCAGTGGCTGCTAACCAAGCCAAGCAGGGGTCTCTAATAA

### 3055/6881 FIGURE 2817B

ATTCCCTTAAGCCATCTGGGCCTACACCAGCATCCGGTCAGTTATCATCTGGTGACAAAGCTTCAGGGACAGCCA AGATAGAAACAGCTGTGACTTCAACCCCATCTGCTTCTGGGCAGTTCAGCAAGCCTTTCTCATTTTCTCCATCAG GGACTGGCTTTAATTTTGGGATAATCACACCAACACCGTCTTCTAATTTCACTGCTGCACAAGGGGCAACACCCT CCACTAAAGAGTCAAGCCAGCCGGACGCATTCTCATCTGGTGGGGGAAGCAAACCTTCTTATGAGGCCATTCCTG AAAGCTCACCTCCGCAATCACATCCGCATCAAACACCACCCCAGGAGAACCTGCCGCATCTAGCAGCAGAC CTGTGGCACCTTCTGGAACTGCTCTTTCCACCACCTCTAGTAAGCTGGAAACCCCACCGTCCAAGCTGGGAGAGC TTCTGTTTCCAAGTTCTTTGGCTGGAGAGACTCTGGGAAGTTTTTCAGGACTGCGGGTTGGCCAAGCAGATGATT CAGGGTTTAATTTTACTGCCCCCCGGTGTTAGGGAAGCACACGGAGCCCCCTGTGACATCCTCTGCAACCACCA CCTCAGTAGCACCACCAGCAGCACCAGCACTTCCTCAACTGCCGTTTTTTGGCAGTCTGCCAGTCACCAGTGCAG GATCCTCTGGGGTCATCAGTTTTGGTGGGACATCTCTAAGTGCTGGCAAGACTAGTTTTTCATTTGGAAGCCAAC AGACCAATAGCACAGTGCCCCCATCTGCCCCACCACCACTACAGCTGCCACTCCCCTTCCAACATCATTCCCCA AGGCCACTTCATCAGCTTTGCCTGAGAAGCCAGGTGACAGTGAGGTCTCAGCATCAGCAGCCTCACTTCTAGAGG AGCAACAGTCAGCCCAGCTTCCCCAGGCTCCTCCGCAAACTTCTGACTCTGTTAAAAAAAGAACCTGTTCTTGCCC AGCCTGCAGTCAGCAACTCTGGCACTGCAGCATCTAGTACTAGTCTTGTAGCACTTTCTGCAGAGGCTACCCCAG CCACCACGGGGGTCCCTGATGCCAGGACGGAGGCAGTACCACCTGCTTCCTCCTTTTCTGTGCCTGGGCAGACTG CTGTCACAGCAGCTGCTATCTCAAGTGCAGGCCCTGTGGCCGTCGAAACATCAAGTACCCCCATAGCCTCCAGCA TTGCTCAGCCTCCTGCTGCCAGTTCTAGCTCAGCTTTCAACCAGCTCACCAACAACACCAGCCACTGCCCCCTCTG CCACGCCCGTGTTTGGGCAGCTGGCAGCCAGCACCAAGTCTGTTTGGGCAGCAGACTGGTAGCACAGCCA GCACAGCAGCTGCCACACCACAGGTCAGCAGCTCAGGGTTTAGCAGCCCAGCTTTTGGTACCACAGCCCCAGGGG TCTTTGGACAGCAACCTTCGGGCAGGCCTCAGTCTTTGGGCAGTCGGCGAGCAGTGCTGCAAGTGTCTTTTCCT TCAGTCAGCCTGGGTTCAGTTCCGTGCCTGCCTTCGGTCAGCCTGCTTCCTCCACTCCACATCCACCAGTGGAA GTGTCTTTGGTGCCGCCTCAAGTACCAGTAGCTCCAGTTCCTTCTCATTTGGACAGTCTTCTCCCAACACAGGAG GGGGGCTGTTTGGCCAAAGCAACGCTCCTGCTTTTGGGCAGAGTCCTGGCTTTGGACAGGGAGGCTCTGTCTTTG GTGGTACCTCAGCTGCCACCACACAGCAGCAACCTCTGGGTTCAGCTTTTGĆCAAGCTTCAGGTTTTGGGTCTA GTAATACTGGTTCTGTGTTTGGTCAAGCAGCCAGTACTGGTGGAATAGTCTTTGGCCAGCAATCATCCTCTTCCA AGGATGCAGCCAACAAAAACCCATTCAGCTCGGCCAGTGGGGGCTTTGGATCCACAGCTACCTCAAATACCTCTA ACCTATTTGGAAACAGTGGGGCCAAGACATTTGGTGGATTTGCCAGCTCGTCGTTTGGAGAGCAGAAACCCACTG TCGGTGCTGCTCCAGTGTTTGGCAGCCCTCCTACTTTTGGGGGATCCCCTGGGTTTGGAGGGGTGCCAGCATTCG GTTCAGCCCCAGCCTTTACAAGCCCTCTGGGCTCGACGGGAGGCAAAGTGTTCGGAGAGGGCACTGCAGCTGCCA GCGCAGGAGGATTCGGGTTTGGGAGCAGCAGCACCACATCCTTCGGCACGCTCGCGAGTCAGAATGCCCCCA CTTTCGGATCACTGTCCCAACAGACTTCTGGTTTTGGGACCCAGAGTAGCGGATTCTCTGGTTTTGGATCAGGCA CAGGAGGTCTGTCCAGGGTTTTGGTGGCTGGCGAAGCTGAGGGCGTGTCAGCAGGCCTTTCGATCCCTGGGACCA ACCGCATCCTCAGCTTCTTCCCCGAGAAATGCTGGAGCAGGCTGTTCAGACCGACGTTGCCATCAAAACACATAC ACCCAGAAAGAACAACAGAAACCAAAACTCACAAGGCGCATGATTACTTGTTTTATATTTCATGTTGGGTTTTC CCTCCCACTATTAAACAGTCTGTTTCCGTAC

GCAGGAGAGGAGGCTGGCCGAGATCAACCGGGAGTTTCTGTGTGACCAGAAGTACAGTGATGAAGAGAACCTTCC AGAAAAGCTCACAGCCTTCAAAGAGAAGTACATGGAGTTTGACCTGAACAATGAAGGCGAGATTGACCTGATGTC TTTAAAGAGGATGATGGAGAAGCTTGGTGTCCCCAAGACCCACCTGGAGATGAAGAAGATGATCTCAGAGGTGAC AGGAGGGGTCAGTGACACTATATCCTACCGAGACTTTGTGAACATGATGCTGGGGAAACGGTCGGCTGTCCTCAA TGCTAGCCTGCCCTGAGGACCCCGGCCTGGACTCCCCAGCCTTCCCACCCCATACCTCCCGGATCTTGCTGCC CTTTGTAAAGCACAAATTATCTGCCTTAAAGGGGCTCTGGGTCGGGGAATCCTGAGCCTTGGGTCCCCTCCT CTTCTTCCCTCCTTCCCCGCTCCCTGTGCAGAAGGGCTGACATCAAACCAAAAACTAGAGGGGGCAGGGCCAGGG CAGGGAGGCTTCCAGCCTGTGTTCCCCTCACTTGGAGGAACCAGCACTCTCCATCCTTTCAGAAAGTCTCCAAGC CAAGTTCAGGCTCACTGACCTGGCTCTGACGAGGACCCCAGGCCACTCTGAGAAGACCTTGGAGTAGGGACAAGG TCGGGGCCCCGCTGCCCCAGCTGATCCCCACTCATTCCACACCTCTTCTCATCCTCAGTGATGTGAAGGTGGGAA GGAAAGGAGCTTGGCATTGGGAGCCCTTCAAGAAGGTACCAGAAGGAACCCTCCAGTCCTGCTCTCTGGCCACAC  $\tt CTGTGCAGGCAGCTGAGGGCAGCCGTACTGTCCCTTACTGGGGCAGCAGAGGGCTTCGGAGGCAGAA$  $\tt GTGAGGCCTGGGGTTTTGGGGGAAAGGTCAGCTCAGTGCTGTTCCACCTTTTAGGGAGGTTACTGAGGGGACCAG$ GATGGGAGAATGAGGAGTAAAATGCTCACGGCAAAGTCAGCAGCACTGGTAAGCCAAGACTGAGAAATACAAGGT TGCTTGTCTGACCCCAATCTGCTTGAAACCTGACTCTGCTTCTCTCATTTGTCTTCCTACCCTACTCACATAATT CACTCATTGACTCACTCATTCACCAGATATTTATTGACCTGCTATTATAAGCTTTACATCCTCCCATGTTGTCCT GGCATGTGCAGTATACACGGTCTAACTCATCTCTCCCCAGATCTCTCAGAACCTTGAGCTTGGGAATTGAACTGG GGTCACCTGTGTCCTTTCTTATGGACTCGCAGGATTTTAGAACCCTAATGCACCCTGGAGGGTAGCTGGGCCAGA CTTCTCATTTCACAGGTGAGGAGACTGGTGCCCCACAGGGATTAAGTGCCTTGCCCAAGGTCAGGCTTATCTCCA GAGGGAGGTGCCCTGGACTGGGGCCCAGATGTTCAGGGACCCTGCCTACACCTCATTTCCAGTGTGGGCTGCCTT AGTTAGTTATGAGAACAGGGAAGGGCTGGGAAGAGACAGCCTCCAAGGTCAACACTTGGAGAGGGGTTTCACTTGC TCTGAAGACCCTGGTCCAGGATTCGCCCTCTCCCATGCCTTCAAGTCAGGCATCAGGCTTAGGGCAAAGACCAGGC CTCTGAAGCTGCCTCTTGTAATTCATGCAGGAAGATGTCAAAGTCAGCCCCATCTTGGCTGATCAGGGTGTTCAG CCTTAACCCCACCTGTGTTCTGAAGTCTCTTACCCTACCTGCTCAGGACTGAGACAGTTATTCACTGAACATATT TATTAAGCACTTGCTGTAGGCCAACAGTTAAGAATCCAATAATGAAATGGACAGATTCATGGAACTTAGAGTCCA ATAGGAAAGTGAGACCCAGACAATGACAATGAGATAAATGTTAGGAAGGGGGAGGTATGGGGTGACTTCCCTGCA GTCCTGGGGGCCCTAGATGGGCCCAAGACTGGGTGAGAGTCTTGGCAGAGCCTTTGCAACACCTTAAGTGGACAGG ACTGGGAGGTCTTGGTGGTTGGAGCCAACGTGGGTTCCCTGCGGCTCCTTAGTCACCTCTGATAGCAGATTGAGG GAGGAAAACAGGTAAGGCATGAGGAAATGGCCAGGTTGGGTTAACCCACTGGTTTCAACCAGTTCAGGAATGAGG TTATTTGGCCATGACTGGCTGATCTTGAGCTCAAGGATCTGCTTCAAATGCACACAGGCCTAGTTGAAGTTTAAA TGGCCCCAGCTTCTGGAAATGGCAGAAGAGAGGGTTTTCTCATTGAATGGGGGTGGGGGCTCGTGTGTCCTGGGA AACCCCATCAGTCCCTTCATTTCTTGAGACTCAACTCCTGGGAGGAGGGGTCTCAAGAGTTGTCCCTGGAAGGA GGGCGGGGGCAGTCTATTTCAGGTTGTGGCTCTTGGTTCTAGGACTCTTACTTCTCTGGCTAAGGGCTC CATGGGAGTGTGCGTGGACTGGGATATCATCTCTACAGCCTGCAAATAAACCAGACAAACTT

#### 3057/6881 FIGURE 2819A

GCAGGGAAGAAGGAATCATCGAGGCATGGGGGTCCACACTGCAATGTTTTTGTGGAACAAGCCCTTCAGCGGCCA GTAGCATCTGACTTTGAGCCTCAGGGTCTGAGTGAAGCCGCTCGTTGGAACTCCAAGGAAAACCTTCTCGCTGGA CCCAGTGAAAATGACCCCAACCTTTTCGTTGCACTGTATGATTTTTGTGGCCAGTGGAGATAACACTCTAAGCATA ACTAAAGGTGAAAAGCTCCGGGTCTTAGGCTATAATCACAATGGGGAATGGTGTGAAGCCCAAACCAAAAATGGC CAAGGCTGGGTCCCAAGCAACTACATCACGCCAGTCAACAGTCTGGAGAAACACTCCTGGTACCATGGGCCTGTG TCCCGCAATGCCGCTGAGTATCTGCTGAGCAGCGGGATCAATGGCAGCTTCTTGGTGCGTGAGAGTGAGAGCAGT  ${\tt AAGCTCTACGTCTCCCGAGAGCCGCTTCAACACCCTGGCCGAGTTGGTTCATCATCATCATCAACGGTGGCCGAC}$ GGGCTCATCACCACGCTCCATTATCCAGCCCCAAAGCGCAACAAGCCCACTGTCTATGGTGTGTCCCCCAACTAC GACAAGTGGGAGATGGAACGCACGGACATCACCATGAAGCACAAGCTGGGCGGGGGCCAGTACGGGGAGGTGTAC GAGGGCGTGTGGAAGAAATACAGCCTGACGGTGGCCGTGAAGACCTTGAAGGAGGACACCATGGAGGTGGAAGAG TTCTTGAAAGAAGCTGCAGTCATGAAAGAGATCAAACACCCTAACCTGGTGCAGCTCCTTGGGGTCTGCACCCGG GAGCCCCCGTTCTATATCATCACTGAGTTCATGACCTACGGGAACCTCCTGGACTACCTGAGGGAGTGCAACCGG CAGGAGGTGAACGCCGTGGTGCTGCTGTACATGGCCACTCAGATCTCGTCAGCCATGGAGTACCTGGAGAAGAAA AACTTCATCCACAGAGATCTTGCTGCCCGAAACTGCCTGGTAGGGGAGAACCACTTGGTGAAGGTAGCTGATTTT GGCCTGAGCAGGTTGATGACAGGGGGACACCTACACAGCCCATGCTGGAGCCAAGTTCCCCATCAAATGGACTGCA CCCGAGAGCCTGGCCTACAACAAGTTCTCCATCAAGTCCGACGTCTGGGCATTTGGAGTATTGCTTTGGGAAATT GCTACCTATGGCATGTCCCCTTACCCGGGAATTGACCTGTCCCAGGTGTATGAGCTGCTAGAGAAGGACTACCGC ATGGAGCGCCCAGAAGGCTGCCCAGAGAAGGTCTATGAACTCATGCGAGCATGTTGGCAGTGGAATCCCTCTGAC CGGCCCTCCTTTGCTGAAATCCACCAAGCCTTTGAAACAATGTTCCAGGAATCCAGTATCTCAGACGAAGTGGAA AAGGAGCTGGGGAAACAAGGCGTCCGTGGGGCTGTGAGTACCTTGCTGCAGGCCCCAGAGCTGCCCACCAAGACG AGGACCTCCAGGAGAGCTGCAGAGCACAGAGACACCACTGACGTGCCTGAGATGCCTCACTCCAAGGGCCAGGGA GAGAGCGATCCTCTGGACCATGAGCCTGCCGTGTCTCCATTGCTCCCTCGAAAAGAGCGAGGTCCCCCGGAGGGC GGCCTGAATGAAGATGAGCGCCTTCTCCCCAAAGACAAAAAGACCAACTTGTTCAGCGCCCTTGATCAAGAAGAAG AAGAAGACAGCCCCAACCCCTCCCAAACGCAGCAGCTCCTTCCGGGAGATGGACGGCCAGCCGGAGCGCAGAGGG GCCGGCGAGGAGAGGGCCGAGACATCAGCAACGGGGCACTGGCTTTCACCCCCTTGGACACAGCTGACCCAGCC AAGTCCCCAAAGCCCAGCAATGGGGCTCGGGGTCCCCAATGGAGCCCTCCGGGAGTCCGGGGGCTCAGGCTTCCGG TCTCCCCACCTGTGGAAGAAGTCCAGCACGCTGACCAGCAGCCGCCTAGCCACCGGCGAGGAGGAGGGCGGTGGC AGCTCCAGCAAGCGCTTCCTGCGCTCTTGCTCCGCCTCCTGCGTTCCCCATGGGGCCAAGGACACGGAGTGGAGG TCAGTCACGCTGCCTCGGGACTTGCAGTCCACGGGAAGACAGTTTGACTCGTCCACATTTGGAGGGCACAAAAGT GAGAAGCCGGCTCTGCCTCGGAAGAGGGCAGGGGAGAACAGGTCTGACCAGGTGACCCGAGGCACAGTAACGCCT CCCCCAGGCTGGTGAAAAAGAATGAGGAAGCTGCTGATGAGGTCTTCAAAGACATCATGGAGTCCAGCCCGGGC TCCAGCCCGCCCAACCTGACTCCAAAACCCCTCCGGCGGCAGGTCACCGTGGCCCTGCCTCGGGCCTCCCCAC AAGGAAGAAGCTGGAAAGGGCAGTGCCTTAGGGACCCCTGCTGCAGCTGAGCCAGTGACCCCCACCAGCAAAGCA GGCTCAGGTGCACCAGGGGGCACCAGCAAGGGCCCCGCCGAGGAGTCCAGAGTGAGGAGGCACAAGCACTCCTCT GGGAAGGCTGGAGGAAAGCCCTCGCAGAGCCCGAGCCAGGAGGCCGGGGAGGCAGTCCTGGGCGCAAAGACA AAAGCCACGAGTCTGGTTGATGCTGTGAACAGTGACGCTGCCAAGCCCAGCCGGGAGAGGGGCCTCAAAAAG CCCGTGCTCCCGGCCACTCCAAAGCCACAGTCCGCCAAGCCGTCGGGGACCCCCATCAGCCCAGCCCCGTTCCC TCCACGTTGCCATCAGCATCCTCGGCCCTGGCAGGGGGACCAGCCGTCTTCCACCGCCTTCATCCCTCTCATATCA ACCCGAGTGTCTCTTCGGAAAACCCGCCAGCCTCCAGAGCGGATCGCCAGCGGCGCCATCACCAAGGGCGTGGTC TTCCGAGAGGCCATCAACAAACTGGAGAATAATCTCCGGGAGCTTCAGATCTGCCCGGCGACAGCAGCAGTGGT CCAGCGGCCACTCAGGACTTCAGCAAGCTCCTCAGTTCGGTGAAGGAAATCAGTGACATAGTGCAGAGGTAGCAG CTGACAAGGGACTAGTGAGTCAGCACCTTGGCCCAGGAGCTCTGCGCCAGGCAGAGCTGAGGGCCCTGTGGAGTC

#### 3058/6881 FIGURE 2819B

TTTATCTGTGGAGTTCCTGCTCCGTGGACTGCAGTCGGCATGCCAGGACCCGCCAGCCCGCTCCCACCTAGTGC  $\verb|CCTCCTCCCCGGCTGGGCCTCCTTCTTCCACTTCTCCAAGAATGGAAGCCTGAACTGAGGCCTTGTGTGTCAGG|\\$  $\tt CCCTCTGCCTGCACTCCCTGGCCTTGCCCGTCGTGTGCTGAAGACATGTTTCAAGAACCGCATTTCGGGAAGGGC$ ATGCACGGGCATGCACACGGCTGGTCACTCTGCCCTCTGCTGCCCGGGGTGGGGTGCACTCGCCATTTCCTC ACGTGCAGGACAGCTCTTGATTTGGGTGGAAAACAGGGTGCTAAAGCCAACCAGCCTTTGGGTCCTGGGCAGGTG GGAGCTGAAAAGGATCGAGGCATGGGGCATGTCCTTTCCATCTGTCCACATCCCCAGAGCCCAGCTCTTGCTCTC TTGTGACGTGCACTGTGAATCCTGGCAAGAAAGCTTGAGTCTCAAGGGTGGCAGGTCACTGTCACTGCCGACATC  $\tt CCTCCCCAGCAGAATGGAGGCAGGGGACAAGGGAGGCAGTGGCTAGTGGGGTGAACAGCTGGTGCCAAATAGCC$  $\tt CCAGACTGGGCCCAGGGTCTGCAAGGGCCCAGAGTGAACCGTCCTTTCACACATCTGGGTGCCCTGAAAGGG$ CCCTTCCCCTCCCCACTCCTAAGACAAAGTAGATTCTTACAAGGCCCTTTCCTTTGGAACAAGACAGCCTTC ACTITICIGAGTICTIGAAGCATTICAAAGCCCTGCCTCTGTGTAGCCGCCCTGAGAGAGAATAGAGCTGCCACT GGGCACCTGCGCACAGGTGGGAGGAAAGGGCCTGGCCAGTCCTGGTCCTGGCTGCACTCTTGAACTGGGCGAATG CGGAGCCCCTGAAAGCCTCACGTATTTCACAGAGCACGCCTGCCATCTTCTCCCCGAGGCTGCCCCAGGCCGGAG CCCAGATACGGGGGCTGTGACTCTGGGCAGGGACCCGGGGTCTCCTGGACCTTGACAGAGCAGCTAACTCCGAGA GCAGTGGGCAGGTGGCCGCCCTGAGGCTTCACGCCGGGAGAAGCCACCTTCCCACCCCTTCATACCGCCTCGTG  ${\tt CCAGCAGCCTCGCACAGGCCCTAGCTTTACGCTCATCACCTAAACTTGTACTTTATTTTTCTGATAGAAATGGTT}$ GAGGTACTGGTCCCTTCCTTTTGTTAACGTGATGTGCCACTATATTTTACACGTATCTCTTGGTATGCATCTTTT ATAGACGCTCTTTTCTAAGTGGCGTGTGCATAGCGTCCTGCCCTCGGGGGGCCTGTGGTGGCTCCCCCT CTGTAGTATTTTTTAAATAAATCAGTGTTTACATTAG

PCT/US2003/028547

# 3059/6881 FIGURE 2820

 ${\tt GGCACGAGGAG}{\color{blue}{\textbf{ATG}}}{\tt GCGATGGAGATGAGGCTTCCAGTGGCTCGCAAGCCTCTTAGCGAGAGACTGGGCCGCGACA}$ CTAAGAAACATCTAGTGGTGCCGGGGGATACAATCACTACGGACACAGGATTCATGCGGGGCCATGGAACGTATA TGGGAGAAGAGAAGCTCATTGCATCTGTTGCTGGCTCTGTGGAGAGAGTAAACAAGTTGATCTGTGTGAAAGCTT TGAAAACCAGATACATTGGTGAAGTAGGAGACATCGTAGTGGGACGAATCACAGAGGTTCAACAGAAGAGGTGGA AGGTGGAGACCAACTCCAGGCTGGATTCGGTCTTGCTGCTCCTCGTCCATGAACCTTCCTGGAGGAGAGCTGAGGA GAAGATCTGCAGAAGATGAGCTTGCAATGAGAGGTTTCTTACAGGAAGGGGACCTTATCAGTGCTGAGGTCCAGG CAGTGTTCTCTGACGGAGCTGTCTCTTTGCACACGAGGAGCCTGAAATATGGAAAACTAGGTCAGGGGGTTTTGG TCCAGGTTTCCCCCTCCCTGGTGAAACGGCAGAAGACCCACTTTCATGATTTGCCATGTGGTGCCTCAGTGATTC TCGGTAACAACGGCTTCATCTGGATTTACCCAACACCTGAGCACAAGAAGAAGAAGAAGCAGGGGGGCTTCATTGCAA ACCTGGAGCCTGTCTCTTGCTGATCGAGAGGTGATATCCCGGCTTCGGAACTGCATCATCTCGCTGGTAACTC AGAGGATGATGCTGTATGATACCAGCATCCTGTACTGCTATGAAGCATCCCTTCCACATCAGATCAAAAGACATCT TAAAGCCAGAAATAATGGAGGAGATTGTGATGGAAACACGCCAGAGGCTTTTGGAACAGGAGGGA<u>TAA</u>GGAGGTG CTCCAGAAGCACGGGACTGTGGACCTTGCAGGAGTGAAGACTGTGATGTGTGGTCCCCATATGTGGCTCAGCAAA GACTCGAGAGATCATCCCTTTGTCTGCATTGACGGCCCTGTGACGGCCTCCAGCCCACAGGCCTGCTTTCTCCTG TCCTAACACCAAGCCTGGGTGGCAGATGAACAGTGCTTCCTTGGGTTGCCAGCTGAGTCCCGGTATTAGGGAATA GTTTCAGCTCTTTCAAAGTGCACAGTGTTACAGTCGAATGGGCTCCCATCCTGGAATAATATGGAGAATCCTTTG TCTTCCACTCACTGTCATTCACAAGGCACAGTGCCCCATGAAATTGCCCCAATAGAAAACATGGCATCCCTGACC TCCAAATGGTCTGTTTTGGCCTCCATTCCTATATCCTTTAAATGACTGAGAATGCAGCTGGTAAAGTTGGAAGAA TAAAGTTAACCAAGCAGGCCAGGCACGGTGGCTCACGCCTATAATCCCAGCACTTAGGGAGGCCAAGGCGGCAG ATCACCTGAGGTCAATAGTTCGAGACCAGCCTGGCCAACAAGGTGAAACCCCATCTCTACTAAAAAATACAAAAAA TTAGCCAGGTGTGGTGTGCACCTGTAGTCCCAGCTATTTGGGAGGCTGAGGTGGGAGAATCACTTGAACCTG GGAGGCGGAGGTTGCAGTGAGCTGAAATCGCGTACCACACTCCAGCCTGGGTGACAGAGCGAGACTGTGTTTCAA AGAAAAAAAAAAAACAAGCAGCCTTTTGCTTGGTTGGAATCTGATTTTCTGTTGCGTGTTCCTTGTAGCCATAGAT GTGATTATGTCCACACCGGGCTGCCTTAATCTGTCCTGCTTGGAGAGTGACTTGTAAGATGCTGAATTATTCATG ATAATACAGTGAATGTTCTGGGTCCATGTACTCAGATAAACATGAAGAAAAATAAGCAAAGAAAAATGGAGACTGG GAAAGCAAAGCTGTTTTCATCCTATAATTGAAGTAGTGTGGAGCATTAACTTGTGGATGATTCAGAGTTAAAAGA 

MAMEMRLPVARKPLSERLGRDTKKHLVVPGDTITTDTGFMRGHGTYMGEEKLIASVAGSVERVNKLICVKALKTR YIGEVGDIVVGRITEVQQKRWKVETNSRLDSVLLLSSMNLPGGELRRSAEDELAMRGFLQEGDLISAEVQAVFS DGAVSLHTRSLKYGKLGQGVLVQVSPSLVKRQKTHFHDLPCGASVILGNNGFIWIYPTPEHKEEEAGGFIANLEP VSLADREVISRLRNCIISLVTQRMMLYDTSILYCYEASLPHQIKDILKPEIMEEIVMETRQRLLEQEG

ACGCTATGTCCAGCAAAGGCTCCGTGGTTCTGGCCTACAGTGGCGGCCTGGACACCTCGTGCATCCTCGTGTGGC AGAAGGCACTGAAGCTTGGGGCCAAAAAGGTGTTCATTGAGGATGTCAGCAGGAGTTTGTGGAGGAGTTCATCT GGCCGGCCATCCAGCCGCACTGTATGAGGACCGCTACCTCCTGGGCACCTCTCTTGCCAGGCCCTGCATCG  $\verb|CCCGCAAACAAGTGGAAATCGCCCAGCGGGAGGGGGCCAAGTATGTGTCCCACGGCGCCACAGGAAAGGGGAACG|$ ATCAGGTCCGGTTTGAGCTCAGCTGCTACTCACTGGCCCCCCAGATAAAGGTCATTGCTCCCTGGAGGATGCCTG AATTCTACAACCGGTTCAAGGGCCGCAATGACCTGATGGAGTACGCAAAGCAACACGGGATTCCCATCCCGGTCA CTCCCAAGAACCCGTGGAGCATGGATGAGAACCTCATGCACATCAGCTACGAGGCTGGAATCCTGGAGAACCCCA AGAACCAAGCGCCTCCAGGTCTCTACACGAAGACCCAGGACCCAGCCAAAGCCCCCAACACCCCTGACATTCTCG AGATCGAGTTCAAAAAAGGGGTCCCTGTGAAGGTGACCAACGTCAAGGATGGCACCACCACCACAGACCTCCTTGG AGCTCTTCATGTACCTGAACGAAGTCGCGGGCAAGCATGGCGTGGGCCGTATTGACATCGTGGAGAACCGCTTCA TTGGAATGAAGTCCCGAGGTATCTACGAGACCCCAGCAGGCACCATCCTTTACCACGCTCATTTAGACATCGAGG  $\verb|CCTTCACCATGGACCGGGAAGTGCGCAAAATCAAACAAGGCCTGGGCTTGAAATTTGCTGAGCTGGTGTATACCG|\\$ GTTTCTGGCACAGCCCTGAGTGTGAATTTGTCCGCCACTGCATCGCCAAGTCCCAGGAGCGAGTGGAAGGGAAAG  ${\tt TGCAGGTGTCCGTCCTCAAGGGCCAGGTGTACATCCTCGGCCGGGAGTCCCCACTGTCTCTCTACAATGAGGAGC}$ TGGTGAGCATGAACGTGCAGGGTGATTATGAGCCAACTGATGCCACCGGGTTCATCAACATCAATTCCCTCAGGC  $\texttt{TGAAGGAATATCATCGTCTCCAGAGCAAGGTCACTGCCAAA} \underline{\textbf{TAG}} \textbf{ACCCGTGTACAATGAGGAGCTGGGGCCTCCT}$ CAATTTGCAGATCCCCCAAGTACAGGCGCTAATTGTTGTGATAATTTGTAATTGTGACTTGTTCTCCCCGGCTGG AAGGGTGGGGGCAGCTGCGGTGGGGAGCTATAAAAATGACAATTAAAAGAGACACTAGTCTTTTATTTCTAAAA ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

MSSKGSVVLAYSGGLDTSCILVWLKEQGYDVIAYLANIGQKEDFEEARKKALKLGAKKVFIEDVSREFVEEFIWP AIQSSALYEDRYLLGTSLARPCIARKQVEIAQREGAKYVSHGATGKGNDQVRFELSCYSLAPQIKVIAPWRMPEF YNRFKGRNDLMEYAKQHGIPIPVTPKNPWSMDENLMHISYEAGILENPKNQAPPGLYTKTQDPAKAPNTPDILEI EFKKGVPVKVTNVKDGTTHQTSLELFMYLNEVAGKHGVGRIDIVENRFIGMKSRGIYETPAGTILYHAHLDIEAF TMDREVRKIKQGLGLKFAELVYTGFWHSPECEFVRHCIAKSQERVEGKVQVSVLKGQVYILGRESPLSLYNEELV SMNVQGDYEPTDATGFININSLRLKEYHRLQSKVTAK

AAAAATCGAGGCGGGGCTGAGAGGCTGCGGCGGCTGACTAGGTTTTCGGACCGCGGCGGCGGGGAAGAGAGACAC TGCGGCGGGAGGCCAGGCCGTGGGAGAGACGCGGGAAAGTGCGGGTCGCAGAGGCACTTGACCACCCCGCCCTA GGCCGACCCGGCGGACGCGTCTGGTGTGCGGGCGCTGGGGCGGTCCCAGGTCTCCCCGCTGCGTGCTTGA GGCTCAGCCATGGCCCAGCAGAGAGCCCTGCCCCAGAGCAAGGAGACGCTGCTGCAGTCCTACAACAAGCGGCTG AAGGACGACATTAAGTCCATCATGGACAACTTCACCGAGATCATCAAGACCGCCAAGATTGAGGACGAGACGCAG GTGTCACGGGCCACTCAGGGTGAACAGGACAATTACGAGATGCATGTGCGAGCCGCCAACATCGTCCGAGCCGGC GAGTCCCTGATGAAGCTGGTGTCCGACCTCAAGCAGTTCCTGATCCTCAATGACTTCCCCTCCGTGAACGAGGCC ATTGACCAGCGCAACCAGCAGCTGCGCACACTGCAGGAGGAGTGCGACCGGAAGCTCATCACGCTGCGAGACGAG ATCTCCATTGACCTCTACGAGCTGGAGGAGGAGTATTACTCGTCCAGCTCAAGCCTTTGCGAAGCTAATGACCTG CCTCTGTGCGAAGCTTACGGCAGGCTGGACCTCGACACAGACTCTGCTGATGGCCTCTCGGCCCCTCTGCTGGCG TCCCCGGAGCCCAGTGCTGGCCCCTACAGGTGGCAGCCCCTGCCCACTCCCATGCTGGTGGCCCTGGCCCCACT GAGCACGCCTGAGCCTCCGGGGCCACGCTTCGTTCTCAGGAACAAAACCTGAGGCAGCCCTTTGGATGCCCTCAC AGCCTTGCTTCTCTCAGCCTAGGTTCCCATTTGGGGACTTCAGGACCCCAGAGCCACTAGGACTTCCTTGGGAAG CCCGTTAGCCCAGGGTGGGTCCCACCAGGACAGTAGGGAAACAGTTGTTTCCCTAGCCATTTCCGAATAGCCCAT CCGTTGGGGATCTCAGCAGTGGGGCAGGAGGGTGCCTGATTTCGGGGAGTCCTGACCCGAGCCTGTTGTCAGAGT TGGGAGGGCTCTGAGCAGTGTTGGGCAGGCCGGGTCTCCCATCCCGAGGCCAGCGTTCCTGTGCAGAGCCCCAT CCACTGGTTCTTGCCCTGAGCCACATATGTCTGTGCCATGGGCTGAGTGCCACGACAGGCCCGTGTGACAGCTGC TGCCCACGCATGTGGAAGCTAGGTGGGACTCATTCCTAATTCTGCCGTTGTAATGAGACTTGATTAAAACACCGC CACTTTTTTGC

GGAGAAGGGAGGCGCCTGGCTGTATCCCCCGCAGGCCCTCTTCCGAGAGCCTTCCTCCTCGGGCAGTGCGTTCTG GGGCTGTGCTGCTCCTGTTACCTTCTGAAACCTTCGACCGTTTGAGCTGGAGGGGCCCTGAGAAATCAGAGTCTA CGTATCATTTACTTAGGGGGAAACTTAGGCTGGAGACAGGGAGGCCTTCCACTCTGCCCCATTAGCTTAGAAAAT GTGGATTTAAAATACTCCTTTCTGCCCATTGGCCATGCTGGGAGCCACAGCTATCCAGAGCCAGCATGACCTGGG GCTTGGTTTCCCTGCCCTGGGCTCAGTGGCACTGCTGAGCTGCAGCAGTCCTAGAGTTTTCCAGGGGGTTCTGAG GGAATCTTTGGTCCCCAGTACTCATTAACTCAGCAGACATGAGGCAGCATTTCCTCCACACTAGGGTGGCTGAGA GGGGTCCTGGGGTGTTTCAGACCCTTCTGGGCATCTCCTTCCACAGCTGTTCAGTTTGTCGGTCTCTTTGAGGCA TGCCCTCCCCAACAGTCCCTCAGCTTCACCCAGCGGGGCTTCCAGGCCAGCCTGTGTCCCCTCCCGCAGGCCTC GGGGTTTCTGGTGGTGGAAAAGCTCAAGCCTTTGCGAAGCTAATGACCTGCCTCTGTGCGAAGCTTACGGGAGGC TGGACCTCGACACAGACTCTGCTGATGGCCTCTCGGCCCCTCTGCTGCGCGTCCCCGGAGCCCAGTGCTGGCCCCC TACAGGTGGCAGCCCTGCCCATCCCATGCTGGTGGCCCTGAGCCCCACTGAGCACGCCTGAGCCTCCGGGGCCA CGCTTCGTTCTCAGGAACAAAACCTGAGGCAGCCCTTTGGATGCCCTCACAGCCTTGCTTCTCTCAGCC

MPKGKKAKGKKVAPAPAVVKKQEAKKVVNPLFEKRPKNFGIGQDIQPKRDLTRFVKWPRYIRLQRQRAILYKRLK VPPAINQFTQALDRQTATQLLKLAHKYRPETKQEKKQRLLARAEKKAAGKGDVPTKRPPVLRAGVNTVTTLVENK KAQLVVIAHDVDPIELVVFLPALCRKMGVPYCIIKGKARLGRLVHRKTCTTVAFTQVNSEDKGALAKLVEAIRTN YNDRYDEIRRHWGGNVLGPKSVARIAKLEKAKAKELATKLG

GGAGCCGCACCGACGCGGAGCCGACGCCGCCGCCACTTCCTGTGGAGGCCGCAGCGGGTGCGGGCGCCGA  $\tt CGGGCGAGCCGAGCGAGCGAGCCGAGCCGAGCCTCCCGCCGTCGCC\underline{ATC}_{GGCCAGAACGACCTGAT}$ GGGCACGGCCGAGGACTTCGCCGACCAGTTCCTCCGTGTCACAAAGCAGTACCTGCCCCACGTGGCGCGCCTCTG TCTGATCAGCACCTTCCTGGAGGACGGCATCCGTATGTGGTTCCAGTGGAGCGACGACGCGCGACTACATCGACAC  ${\tt CACCTGGAACTGCGGCTACCTGGCCTCGTCCTTCGTCTTCCTCAACTTGCTGGGACAGCTGACTGGCTGCGT}$ CCTGGTGTTGAGCAGGAACTTCGTGCAGTACGCCTGCTTCGGGCTCTTTGGAATCATAGCTCTGCAGACGATTGC  $\tt CTACAGCATTTTATGGGACTTGAAGTTTTTGATGAGGAACCTGGCCCTGGGAGGAGGCCTGTTGCTGCTCCTAGC$ AGAATCCCGTTCTGAAGGGAAGAGCATGTTTGCGGGCGTCCCCACCATGCGTGAGAGCTCCCCCAAACAGTACAT GCAGCTCGGAGGCAGGGTCTTGCTGGTTCTGATGTTCATGACCCTCCTTCACTTTGACGCCAGCTTCTTTTCTAT TCTTGTTGTGGGCTCTTTGCCATCAACGTATATTTCAACGCCTTCTGGACCATTCCAGTCTACAAGCCCATGCA TGACTTCCTGAAATACGACTTCTTCCAGACCATGTCGGTGATTGGGGGGCTTGCTCCTGGTGGTCGCCCTGGGCCC  ${\tt TGGGGGTGTCTCCATGGATGAGAAGAAGAAGGAGTGG}{\tt TAA}{\tt CAGTCACAGATCCCTACCTGCCTAAGACCCG}$ TGGCCGTCAAGGACTGGTTCGGGGTGGATTCAACAAAACTGCCAGCTTTTATGTATCCTCTTCCCTTCCCCTCCC TTGGTAAAGGCACAGATGTTTTGAGAACTTTATTTGCAGAGACACCTGAGAATCGATGGCTCAGTCTGCTCTGGA GCCACAGTCTGGCGTCTGACCCTTCAGTGCAGGCCAGCCTGGCAGCTTGGAAGCCTCCCCCACGCCGAGGCTTTGG  ${\tt AGTGAACAGCCCGCTTGGCTGTGGCATCTCAGTCCTATTTTTGAGTTTTTTTGTGGGGGTACAGGAGGGGGCCCTT}$ CAAGCTGTACTGTGAGCAGACGCATTGGTATTATCATTCAAAGCAGTCTCCCTCTTATTTGTAAGTTTACATTTT TAGCGGAAACTACTAAATTATTTTGGGTGGTTCAGCCAAACCTCAAAACAGTTAATCTCCCTGGTTTAAAATCAC ACCAGTGGCTTTGATGTTTTTTCTGCCCCGCATTGTATTTTATAGGAATAGTGAAAACATTTAGGGACACCCAAA GAATGATGCAGTATTAAAGGGGTGGTAGAAGCTGCTGTTTATGATAAAAGTCATCGGTCAGAAAATCAGCTTGGA TTGGTGCCAAGTGTTTTATTGGGTAACACCCTGGGAGTTTTAGTAGCTTGAGGCAAGTGGAGGGGCAAGAAGTC  $\tt CTTGGGGAAGCTGCTGGTCTGGCTGCCTCCAAGCTGGCAAGGGCTAGTGAGACCACACGGG$ GGGCAGGGGGTGTGGCAGGAGCTCCCAGCACTGGAGACCCACGGACTCAACCCAGTTACCTCACATGGGGCCTTT TCTGAGCAAGGTCTCGAAAGCGCAGGCCGCCCTGGCTGAGCAGCACCGCCCTTTCCCAGCTGCACTCGCCCTGTG AATTCCTTTTTACAATTTGTGATGCCTTACCGATTTGATCTTAATCCTGTATTTAAAGTTTTCTAACACTGCCTT ATACTGTGTTTCTCTTTTTGGGGGAGCTTAACTGCTTGTTGCTCCCTGTCGTCTCCACATAGTAAATGCCACAA GGCCCAGCCCGAGCCTGCCTCCTCTTGGCCTCTCATCCATTGGCTCTGCAGGGCAGGGTGAGGCAGGTTTCT GCTCATAAGTGCTTTTGGAAGTCACCTACCTTTTTAACACAGCCGAACTAGTCCCAACGCGTTTGCAAATATTCC CCTGGTAGCCTACTTCCTTACCCCCGAATATTGGTAAGATCGAGCAATGGCTTCAGGACATGGGTTCTCTCCC TGTGATCATTCAAGTGCTCACTGCATGAAGACTGGCTTGTCTCAGTGTTTCAACCTCACCAGGGCTGTCTCTTGG TCCACACCTCGCTCCCTGTTAGTGCCGTATGACAGCCCCCATCAAATGACCTTGGCCAAGTCACGGTTTCTCTGT GGTCAAGGTTGGTTGGCTGATTGGTGGAAAGTAGGGTGGACCAAAGGAGGCCACGTGAGCAGTCAGCACCAGTTC AAGATGCCTTTGCAGGGAGGAGGAGATAAGTGGGATCTACCAATTGATTCTGGCAAAACAATTTCTAAGATTTTT TTGCTTTATGTGGGAAACAGATCTAAATCTCATTTTATGCTGTATTTTATATCTTAGTTGTGTTTTGAAAACGTTT 

MGQNDLMGTAEDFADQFLRVTKQYLPHVARLCLISTFLEDGIRMWFQWSEQRDYIDTTWNCGYLLASSFVFLNLL GQLTGCVLVLSRNFVQYACFGLFGIIALQTIAYSILWDLKFLMRNLALGGGLLLLLAESRSEGKSMFAGVPTMRE SSPKQYMQLGGRVLLVLMFMTLLHFDASFFSIVQNIVGTALMILVAIGFKTKLAALTLVVWLFAINVYFNAFWTI PVYKPMHDFLKYDFFQTMSVIGGLLLVVALGPGGVSMDEKKKEW

ACCCCAGCCATGCCGCCCTCAGTCGCTGGGCCAGCCTGCCCGGCCCCAGCATGCGGGAGGCAGCCTTCATGTAC AGCACAGCAGTGGCCATCTTCCTGGTCATCCTGGTGGCCGCACTGCAGGGCTCCGCTCCCCGTGAGAGCCCCCTC  $\verb|CCCTATCACATCCCCCTGGACCCGGAGGGGTCCCTGGAGCTCTCATGGAATGTCAGCTACACCCAGGAGGCCATC| \\$ CATTTCCAGCTCCTGGTGCGGAGGCTCAAGGCTGGCGTCCTGTTTGGGATGTCCGACCGTGGCGAGCTTGAGAAC GCAGATCTCGTGGTGCTCTGGACCGATGGGGACACTGCCTATTTTGCGGACGCCTGGAGTGACCAGAAGGGGCAG ATCCACCTGGATCCCCAGCAGGACTACCAGCTGCTGCAGGTGCAGAGGACCCCAGAAGGCCTGACCCTGCTTTTC AAGAGGCCCTTTGGCACCTGCGACCCCAAGGATTACCTCATTGAGGACGGCACTGTCCACTTGGTCTACGGGATC CTGGAGGAGCCGTTCCGGTCACTGGAGGCCATCAACGGCTCGGGCCTGCAGATGGGGCTGCAGAGGGTGCAGCTC CTGAAGCCCAATATCCCCGAACCGGAGTTGCCCTCAGACGCGTGCACCATGGAGGTCCAAGCTCCCAATATCCAG ATCCCCAGCCAGGAGACCACGTACTGGTGCTACATTAAGGAGCTTCCAAAGGGCTTCTCTCGGCACCACATTATC AAGTACGAGCCCATCGTCACCAAGGGCAATGAGGCCCTTGTCCACCACATGGAAGTCTTCCAGTGCGCCCCCGAG ATGGACAGCGTCCCCCACTTCAGCGGGCCCTGCGACTCCAAGATGAAACCCGACCGCCTCAACTACTGCCGCCAC GTGCTGGCCGCCTGGGCCCTGGGTGCCAAGGCATTTTACTACCCAGAGGAAGCCGGCCTTGCCTTCGGGGGTCCA GGGTCCTCCAGATATCTCCGCCTGGAAGTTCACTACCACAACCCACTGGTGATAGAAGGACGAAACGACTCCTCA GGCATCCGCTTGTACTACACAGCCAAGCTGCGGCGCTTCAACGCGGGGATCATGGAGCTGGGACTGGTGTACACG CCAGTGATGGCCATTCCACCACGGGAGACCGCCTTCATCCTCACTGGCTACTGCACGGACAAGTGCACCCAGCTG GTGCTGGTCCGGGACGGCCGGGAGTGGGAGATCGTGAACCAGGACAATCACTACAGCCCTCACTTCCAGGAGATC CGCATGTTGAAGAAGGTCGTCCGTCCATCCGGGAGATGTGCTCATCACCTCCTGCACGTACAACACGGAAGAC CGGGAGCTGGCCACAGTGGGGGGCTTCGGGATCCTGGAGGAGATGTGTGTCAACTACGTGCACTACTACCCCCAG ACGCAGCTGGAGCTCTGCAAGAGCGCTGTGGACGCCGGCTTCCTGCAGAAGTACTTCCACCTCATCAACAGGTTC AACAACGAGGATGTCTGCACCTGCCCTCAGGCGTCCGTGTCTCAGCAGTTCACCTCTGTTCCCTGGAACTCCTTC AACCGCGACGTACTGAAGGCCCTGTACAGCTTCGCGCCCATCTCCATGCACTGCAACAAGTCCTCAGCCGTCCGC TTCCAGGGTGAATGGAACCTGCAGCCCCTGCCCAAGGTCATCTCCACACTGGAAGAGCCCACCCCACAGTGCCCC  $\texttt{ACCAGCCAGGGCCGAAGCCCTGCTGGCCCCACCGTTGTCAGCATTGGTGGGGGCAAAGGC\underline{\textbf{TGA}}\texttt{GGGGGGACCTAC}$ TCCTCCCCTCCTCCATGCTGTCCCTGTGGGCTCACACCGGCACTGTGCACTCTACTCTGCGACGATCCCCATGG TCGTCCATTTAAACCCGGCTGACTCAGTGCAGGGACAGCCTGCACAGTGGTCCAGGGTCCAGCCCTCCGCCAGCC CTGTTCCGCCTCACTGGGTGTGGCCTGGCTTCTGGGACAGGCACCATGCTGGGCCGGGGTGTGGAATCACCGGGA GCTCGTGTTTCACAGTGGCCGCCTTCCCTGCGACGGAGGCAGGACCAGGCATTTAGCTAGTTAGAGACTCGCCTG GGAAATTGCTCCATTCCTGAGTAAACAGATATTTTCGCCCACCTAAAGGGAAGCCCTGACAACAACTATCACCAA AAGACGAGGCGGCAAAGATCCAGCGGGGCTTCTGGGCGCCGGTTCCACGTGGGGTGGAATTATTAGCACCAGCTT GCTTCTCTGCCGGTGGGCCAGCGCTGAACAGACCGGGGTGGAGTCAGGGCTGTGCTTTCCGCGTGGTTCTGCCA CTTAGGGAGTGTGCCTTGGGCGGGCCATTTCACATTCCTGACCCTCACTTTTCTCATCTGTAAAACCAGGCTGAT GCCGTGCGGGCTAATGAGCCAATAAAGCTCACACTTGGGCTGGCACCCACTGGAGGTGGG

MREAAFMYSTAVAIFLVILVAALQGSAPRESPLPYHIPLDPEGSLELSWNVSYTQEAIHFQLLVRRLKAGVLFGM SDRGELENADLVVLWTDGDTAYFADAWSDQKGQIHLDPQQDYQLLQVQRTPEGLTLLFKRPFGTCDPKDYLIEDG TVHLVYGILEEPFRSLEAINGSGLQMGLQRVQLLKPNIPEPELPSDACTMEVQAPNIQIPSQETTYWCYIKELPK GFSRHHIIKYEPIVTKGNEALVHHMEVFQCAPEMDSVPHFSGPCDSKMKPDRLNYCRHVLAAWALGAKAFYYPEE AGLAFGGPGSSRYLRLEVHYHNPLVIEGRNDSSGIRLYYTAKLRRFNAGIMELGLVYTPVMAIPPRETAFILTGY CTDKCTQLALPPSGIHIFASQLHTHLTGRKVVTVLVRDGREWEIVNQDNHYSPHFQEIRMLKKVVSVHPGDVLIT SCTYNTEDRELATVGGFGILEEMCVNYVHYYPQTQLELCKSAVDAGFLQKYFHLINRFNNEDVCTCPQASVSQQF TSVPWNSFNRDVLKALYSFAPISMHCNKSSAVRFQGEWNLQPLPKVISTLEEPTPQCPTSQGRSPAGPTVVSIGG GKG

## 3071/6881 FIGURE 2832A

GATTTCTCCACCCAGGTGAACTCCTCCCTCACCTCCCCGACGGGGCGAGGCTCCATGGCTGCCCCCTCGCTGCAC GGCATGGGCCCGCCTTTCTCGGTCATCAGCTCCCCCATGGGCCCCCACTCCATGTCGGTGCCCACCACACCCCACC TGCGCCATCTGCGGGGACCGCTCCTCAGGCAAGCACTATGGAGTGTACAGCTGCGAGGGGTGCAAGGGCTTCTTC AAGCGGACGGTGCGCAAGGACCTGACCTACACCTGCCGCGACAACAAGGACTGCCTGATTGACAAGCGGCAGCGG AACCGGTGCCAGTACTGCCGCTACCAGAAGTGCCTGGCCATGGGCATGAAGCCGGGAAGCCGTGCAGGAGGAGCGG CAGCGTGGCAAGGACCGGAACGAGAATGAGGTGGAGTCGACCAGCAGCGCCAACGAGGACATGCCGGTGGAGAGG ATCCTGGAGGCTGAGCTGGCCGTGGAGCCCAAGACCGAGACCTACGTGGAGGCAAACATGGGGCTGAACCCCAGC TCGCCGAACGACCTGTCACCAACATTTGCCAAGCAGCCGACAAACAGCTTTTCACCCTGGTGGAGTGGGCCAAG CGGATCCCACACTTCTCAGAGCTGCCCCTGGACGACCAGGTCATCCTGCTGCGGGCAGGCTGGAATGAGCTGCTC ATCGCCTCCTTCTCCCACCGCTCCATCGCCGTGAAGGACGGGATCCTCCTGGCCACCGGGCTGCACGTCCACCGG AACAGCGCCCACAGCGCAGGGGTGGGCGCCATCTTTGACAGGGTGCTGACGGAGCTTGTGTCCAAGATGCGGGAC ATGCAGATGGACAAGACGGAGCTGGGCTGCCTGCGCCCATCGTCCTCTTTAACCCTGACTCCAAGGGGCTCTCG AACCCGGCCGAGGTGGAGGCGCTGAGGGAGAAGGTCTATGCGTCCTTGGAGGCCTACTGCAAGCACAAGTACCCA GAGCAGCCGGGAAGGTTCGCTAAGCTCTTGCTCCGCCTGCCGGCTCTGCGCTCCATCGGGCTCAAATGCCTGGAA TCTCAGCCTGAGCCCTGTCCCTGCCCTTCTCTGCCTGGCCTGTTTTGGACTTTGGGGCACAGCCTGTCACTGCTCT GCCTAAGAGATGTGTTGTCACCCTCCTTATTTCTGTTACTTGTCTGTGGCCCAGGGCAGTGGCTTTCCTGAG ACACCCACGGGCTTGGGCGACTACAGGGTCTTCGGGCCCCAGCCCTGGAGCTGCAGGAGTTGGGAACGGGGCT TTTGTTTCCGTTGCTGTTTATCGATGCTGGTTTTCAGAATTCCTGTGTGGCCCTCCTGTCTGGAGTGACATCTTC ATCTGCTCTGAATACTGGTGCCCAGCCAGCCGTGACAGCTTCCCCCTAATCAGGAGGGGACAGCTGGGGGCCCA GTGCTCTGAGTGAGGGGGAAGGTAGCCCCTTTTTCCAAAGATAACTCACAGTTTTGCCCTCGAGCCAATGAGAAC CTCTGCCTTGGTGTTCTGGTTTCAGACTCCCGACTCCCCGTTCAGACCAGAGTGCCCCGGCCCCTCCCCAGCCTG AGTCTTCTCCTTGCTCTGCGGGGTGGGCTGAGGCTTGTCCTTGTTTCCTGCAGGGCTGGCCCTGGCTCGGCCAGG GTGGGGCATCACCACCTCACTGGCCTTGCTGGAGGCACAGGGCTCTGCGGACCTGCAGCCATCTGTGAGGCCCGC GGAACTGGGAGCCTCGTGGGTGGGGCAGATGCTCCGCGGCCTGGAGTGGCTCTGCCGGGGCATTGGTGGGACCCC TGCTCAGGCCTTCTCTCTGGCTGCCAGTTGTGTCTAAAAGACTCTTGGAATCTGAGAACCCGGAGTCGCAGCGCC CTCGGGCCTGGGCCACGCAGGCCTGGTGGGACCACCCAGCCTGGTATTGTCCACGGACAGCGTTGTTCACCC TGGCTCAGCCCAGTGCGGCCTGGCGCTCCTCCCGCAGGCTCTGCCCCCGGGCTCCGGTGGTGCGGGGCCCTCTCA GGTTGAACTCGCCTCTTTTGCACTGGAAGGCCCTCCCTTTGGCCTGAGTACTTTTCCCGTTCACGCCTCAGTCCC GTGGACCCAGCCTTTGTCAGTGGCAGGTGCCTGAACAGAGGGTGGATGGGGGGGATACCGGAGGGGGTCTTGTCT TCCCAGCCGCAGTCTAGGAATGATGCGGGGGGGTGGACGCCTTCTCCATAGTCTTTCCCCACCTGGAGCAGGGGC TTCCTCAGTGGTGAGGGGAGCTGCCTACAGGTTGGACCGGGAGGCAGTGGCTTGGAGAGGCAGCTTTCCAGCCTT TGCCTTTCAGCGTTGTGGATCCCTAGAGGTGGCCCCCTGCCCGATCCACCGTCCTGAGGCAGAGTGTTGAGCCTC ATACCTGTACCAGGTCCCCGGCCAGCTGGGCCCCTCCCAGGCACTGCCAGGAAGCCCCAGCTGCCCCTGGCGGGT GTGGTGGAAATGGCAGGAGGGTGCAGGTACTCTTGGGGCCCCAGCGGTGGGAGTGCAAAAGACCCAACGCCAACA CCTGGTGCCTTCTGCAGCCAGCGCCCACCCATCCGTGCCCGGACCCTTGGGAATGCCCGCGGCTCCAGAGGAAAA 

## 3072/6881 FIGURE 2832B

TGGCTGGCTGTAAAGCACTGAAGCCCCCCGGCCGCCAACCCCTGAAAGCAGAACCTGGCCTCCCTGGCCAC AGCAGCCTTACCCACCGCTCTACGTGTCCCGGGCCACTTCCCGAGCCTTCCCGTCCCTTTCTCATCGGCCTTGTA GTTGTACAGTGCTGTTGGTTTGAAAAGGTGATGTGTGGGGGAGTGCGGCTCATCACTGAGTAGAAGAGGTAGAATTT CTATTTAACCAGACCTGTAGTAGTATTACCAATCCAGTTCAATTAAGGTGATTTTTTGTAATTATTATTTTTTG GTGGGACAATCTTTAATTTTCTAAAGATAGCACTAACATCAGCTCATTAGCCACCTGTGCCTGTCCCCGCCTTGG CCCGGCTGGATGAAGCGGCTTCCCCGCAGGGCCCCCACTTCCCAGTGGCTGCTTCCTGGGGACCCAGGGCACCCC GGCACCTTCAGGCACGCTCCTCAGCTGGTCACCTCCCGGCTTTGCCGTTCAGATGGGGCTCCTGAGGCTCAGGAG TGAAGATGCCACAGAGCCGGGCTCCCCTAGGCTGCGTCGGGCATGCTTGGAAGCTGGCCTGCCAGGACCTTCCAC CCTGGGGCCTGTGTCAGCCGCCGGCCCTCCGCACCCTGGAAGCACACGGCCTCTGGGAAGGACGGCCTGACCTT CGGTTTTCCGAGCACGGTGTTTCCCAAGAATTCTGGGCTGGCGGCCTGGTGGCAGTGCTGGAGATGACCCCGAGC CCCTCCCGTGGGGCACCCAGGAGGGCCCTGCCGGAATGTGCAGCCTGTGGGTAGTCGGCTGGTGTCCCTGTCGT GCGTGTGGAGAGACCCCACCACCCACCCAGGAAAGGCGGAGCGGTTACCAGTGTTTTGTGTTTATTTTTA ATCAAGACGTTTCCCCTGTTTTCCTATAAATTTGCTTCGTGTAAGCAAGTACATAAGGACCCTCCTTTGGTGAAA TCCGGGTTCGAATGAATATCTCAAGGCAGGAGATGCATCTATTTTAAGATGCTTTGGAGCAGACAGCTTTAGCCG TTCCCAATCCTTAGCAATGCCTTAGCTGGGACGCATAGCTAATACTTTAGAGAGGATGACAGATCCATAAAGAGA AAAGCTTCGTCCGAGAAACGCCAGGACAGACGATGGCAGAGGAGGAGGGCTCCTGTGACGGCGGCGAGGCTTGGGA GGAAACCGCCGCAATGGGGGTGTCTTCCCTCGGGGCAGGAGGGTGGGCCTGAGGCTTTCAAGGGTTTTCTTCCCT TTCGAGTAATTTTTAAAGCCTTGCTCTGTTGTCCTGTTGCCGGCTCTGCCCTGTCCTGTGACTGAAGT GGCTTCTCCGTACGATTGTCTCTGAAACATCGTGGCCTCAGGTGCCAGGGTTTGATGGACAGTAGCATTAGAATT GTGGAAAGGAACACGCAAAGGGAGAAGTGTGAGAGGAGAAACAAAATATGAGCGTTTAAAATACATCGCCATTC

CTGATGGAATAACAAAGACAACAGGCTTTTGCGCCACGCGGGATCTTCCAAAGGCCCGGATGTCGCTTACAGAG TCACCAAAGACGCGCAGCTCAGCGCACCACCATGCCTCCAGCCCCCCAGCTCGCCGACCCATCCTGTTCGTGA GTATTTCCCCTGACCTTCAAAAAATGTTCCAAGGTAAGCCTCGTAAAGGTCATCCCACCATCACCAAAGCCTCCG TTTTTAACAACCTCCAACACGATCCATTTAGAGGCCCAAATGTCATTCTGCAGGTGCCTTCCCGATGGATTAAAGG TGCTTATGTTTTTGTGAGTTTTAAGTAAATATTTGTATTGTATTGTTATAAATGTTAAGTGTGCCTGGCTTTCAA TCATGCACGGAAACCCAGTCTCAGTCCCACGGACAGAATGGGCGAGGCATGGATTCTGGGTTGCAGTACCGTTCT GATTAGAAATAGGAAGTCTCCCCACCCCCCCCCCCCAAGAACGTGCAATAAATTGGAAGTTTGCCCCGGGGCA GCAAGAATTTATGCTGCCATTGAAAAGCAGGTACCAGTGCCCCTTTTCAGACAGTTTTTGATTCGCTCTAGACTT GATTAATTTATTTGCTTCCTTTTTCCGCTTTTCTTCCCGCAGAGCCTGATGGGAGAATGTCCAGGGCAGGGAAA CCACATTTTTTGTAGGTGATAACTCAATGAAAATTGGTGCTTATTTTTTACACTTCTCTTGTGGCTCTCTTGT GGTGCTATCTATCTGTTTTAAGGTCTCCTTGAAGGCGCACTGGGGACCCTGGCCATGCCTCGTTCTCCCTGCTTT CTTTATCCTGTTATTGCCTCCACAGTCTGTTGCCAAGGACTCTAAGATCAATGCACGTCACTTTCCTTTCCACTG GGCAGGATAGCCAAGCACTCCCTCCTGCGCTCTCCCGCCCCGGTGCGTCCACTCCCGAGGGCTGTTATGAGGA CTGGGTTGTGCCTACTTGATTTGAAAACACACACAAGCAATAAAAAGCCTCTTCCTGCATTGTCTGTGGTGAC CATAGCAGATTATATTTGGTTCCTGAATGTTTGTGGTGCTAATTTCTGTGTTTTGTTCCAAGCCGTTCAGTCATGC TTTCCAAGTAGCCTATTTGGATTCCCATCTCAAATGTCCTGGATGCGAGCGTCAGCGGCTCCAGAGCTCGGGGCC GGTGAGGTCCCCTTTGGGGAACCCTTTCCTGGCCATCGAGGTCGGGGGGCTGCCGTCTGTGGGCAGGAGGACCCG AGGGGCAGCCAGGAAAGGCGATCTCTTCACTGTGAAAAGTTGCCCGGGTGCAGCGCCTTTTCCTTCTACCATGGG AAATGCAGGCTGGGCCCTTGGGGTGAGCCTGCGGGGCTCTGGTGCTGTCCCCGACCCCCCACCACCACCAGAATGC CCTGGAAAGTAAGTCTCGCTCTTGCCAAAGAAAAGTCTGGCTTGGAGAGTCTCTGGAGCCCAGGATGCCAGCATG TGCCAATGACTGTCACCTTCATCTCTTCAAAAGAAAAGCCATAGCCGAGGACTGTCCCGCGACCCCCGTGGACTG CGTCTAGGTCATGTGATTCTGTTTTCATTTCTCATCCCATCCAATTTGTCCTTTTCTCCTGTCATTTTCTTCCTC TGTGGTCCCTTCAAAGTTGTTATAATTTGTACTGAACTTCAAAATGTGTCCCGTTCTCCCCAGACCACTCTAGCC ACAGTATATTGCAATAAAATTACTTCTTATATTTGCAGAAATTCTTTTGGTGTAATTTTATTTTTTCCTCTCAAT ATATATTAATTGGACAAACGCTGGCAAAAAGAAAAAATGGTAAGCAAAAAACCCAAGATAAAGTTTCGAGGACAT CAGGCCTTTTGAAATACAATGTCAAATGACACATTGTACGGTTTCAAAAAAATCCGCTAGACATGTCATAAGTTTT AACTGTAATGCCCAGGAAAGGATATCTTAAAATATTCTAAACTTGTGTAACAAAGGAATAATTAACTGTAATAGT TTTTCAATAAATCGAGTTGGGTGTTTCCACCGT

CAGGGAGTTGAGAAACTGTGGCACAAGGCGAGAGCTGGTTTCCTCTGCCCTGTTAGAGCTGGGGGACTCTTCAGA GTCAAAGGCCAGAGAGCATGGAGCTGAGTGGAGCCACCATGGCCCGGGGGCTCGCTGTCCTGCTAGTCTTGTTCC TGCATATCAAGAACCTGCCTGCCCAGGCTGCGGACACATGTCCAGAGGTGAAGGTGGTGGGGCCTGGAGGGCTCTG ACAAGCTCACCATTCTCCGAGGCTGCCCGGGGCTGCCCGGGGCCCAAAGGGAGAGGCAGGTGTCATTG GAGAGAGAGGAGACCCGGTCTCCCTGGAGCCCCTGGAAAGGACCAGTGGGGCCCAAAGGAGACCGAGGAG AGAAGGGGATGCGTGGAGAAAGGAGACGCTGGGCAGTCTCAGTCGTGTGCGACAGGCCCACGCAACTGCAAGG ACCTGCTAGACCGGGGGTATTTCCTGAGCGGCTGGCACACCATCTACCTGCCCGACTGCCGGCCCCTGACTGTCC  $\verb|CCCTGACTGCCCAGGGAAGCAGCGAGCTCCGTGTAGACCTGGTGGACTTTGAGGGCAACCACCAGTTTGCTAAGT|\\$ ACAAATCATTCAAGGTGGCTGACGAGGCAGAGAAGTACAAGCTGGTACTGGGAGCCTTTGTCGGGGGCAGTGCGG GTAATTCTCTAACGGGCCACAACAACAACTTCTTCTCCACCAAAGACCAAGACAATGATGTGAGTTCTTCGAATT GTGCTGAGAAGTTCCAGGGAGCCTGGTGGTACGCCGACTGTCATGCTTCAAACCTCAATGGTCTCTACCTCATGG GACCCCATGAGAGCTATGCCAATGGTATCAACTGGAGTGCGGCGAAGGGGTACAAATATAGCTACAAGGTGTCAG AGATGAAGGTGCGGCCGCCTAGACGGGCCAGGACCCCTCCACATGCACCTGCTAGTGGGGAGGCCACACCCACA AGCGCTGCGTCGTGGAAGTCACCCCATTTCCCCAGCCAGACACACTCCCATGACGCCCACAGCTGCCCCTTTGCC CCCAGCTCAGTCAAGCCGCCACATGCCCACAACCTCACCAGAGGGAGAATTATGTTTCTAAATATGTTTACTTTG GGACAGAAAAAAAAAAA

MELSGATMARGLAVLLVLFLHIKNLPAQAADTCPEVKVVGLEGSDKLTILRGCPGLPGAPGPKGEAGVIGERGER GLPGAPGKAGPVGPKGDRGEKGMRGEKGDAGQSQSCATGPRNCKDLLDRGYFLSGWHTIYLPDCRPLTVLCDMDT DGGGWTVFQRRMDGSVDFYRDWAAYKQGFGSQLGEFWLGNDNIHALTAQGSSELRVDLVDFEGNHQFAKYKSFKV ADEAEKYKLVLGAFVGGSAGNSLTGHNNNFFSTKDQDNDVSSSNCAEKFQGAWWYADCHASNLNGLYLMGPHESY ANGINWSAAKGYKYSYKVSEMKVRPA

 ${\tt MPGRWRWQRDMHPARKLLSLIFLILMGTELTQNKRENKAEKMGGPESERKTTGEKTLNELPLFCLEAHAGSLALPR RMCSPNPNPAVGLCRPAYPQSPSPGAAQTISQSLLERFCMASRREVFLAPGRPGGGWWLCTVAGQMHSFMCTHTHTHAHTGEQIPAEKSQPGPD}$ 

 ${\tt MAPAASALHPSRPSLLLMVTSACLSTGSSPRPGPLLPWKPSKRPLVAPQRVLAGLCQVQGPVGGQQEPRRPSAQE} \\ {\tt QTHMATLVRSATGSVVERWMSAL}$ 

TGGAGGGGGCGTGAGGCCGCCCTACGGTGGCCGTCGAGGGACGCGCTACGGCTCCCACGCTAGGCCAAACGCCT CCGGCGGCCGCCCGAGAGCCCCTTCACCTGCAGGGCGACCCCAGCCGGCGACGCGTGAACCACGCCCTCAGCC GCCTTGCCAGCGCCCCCAGCCGCGCCCCAGCACCATGCGGCCCCTGCGCACGGAGCCCCGAGGGACAGGGG CACCCGCAGGCCCGGCCCTAGCACCGCCGGCCGGCCCGAGGTCCGGGACGCCGGCGCCGCGGGAGAGGGCA  $\verb|CCGGGCCGACGCCTCCCCCAGGGTCAGCTGCGGGCTCCCAGGCCTAGGCGCCCATGACCCCTACGCCAACAGCC|\\$ GCCTGGACACCGCCGCCGCCACTGCGACCTAGCGCCGCCGCCGCCGGGGCCCAATGCCGGTCATGCCCATTCCGC TCTACTTTAGCTGCAGCCTGTTCACTGCGGCGCTCTGGGGTGCGCTGGCCGCCCTCTTCTGCCTACAGTACCTGG GCGTTCGCGTCCTGCTGCGCTTCCAGCGCAAGCTGTCGGTGCTGCTGCTGCTGCTGCTGCCGCCGCCGCGCGCGTGGACT  ${\tt TCCGCCTGGTGAACGAGCTGCTCGTCTATGGCATCCACGTCACCATGCTGGTCGGGGGGCCTGGGCTGGTGCT}$ TCATGGTCTTCGTGGACATGTGAGGGCCGTGGGTGCGAGCTTGATGTATCGTCCCGGCCTGTGGCTGTTCTCT CCATGGGTGGGGTCGGCCAGCGCCTTCCCTTCGCCCATCCCCCAGGCAGTCGCTGCTGCCCGGCGCCCCACGGAGA GGGCCCTCCGTTCCGCCTCTCTGTGGGCCTCTCTCCAGGACCACAGCTGCCAGGGACTTTAGACATCACCCTGGG TGCGTGCCCTGGCCCCAGCCCAGCCAACGGGACACGGAAGGCTCCCCTCGCTGACACACCACCACACTGCCACAAAG TGTGTGGGTCCTGAGTCCCCAGCCTTCAGGGTCCCCTTGGATTGTGTAGATGCAGTCTAGCGGGGGGCCGG AGAAGGGCTCAGGTGGGAGGGGCCTCAGCAGGCTCCCAGCTCAGGGGCTGGCCTGGGGGAACCCTGGGAGCCAG GGGCTGACTCCAGCAACACTGGCCTGTCTGCCTGTTCTGGGAGGGCTGTGAGGATGTCTTGCAGATGCTCTGGAT ACCGTCAAAGAAGCCTGGGAGATCGAGGCTTCAGTGAGCCAGGATGGAAACGCGTGTCCCAAGTGTCCGGAGCA GGCGGCAGAGGCCTCAGTGCGGCAAACACAGCCCCAGAGCCTGTGTGGCACCAGCAGCATCTTAGAGCCCCAGGT ATATGCTGAGATCTTATCTCACGCTGTCCTCCAGTGTCTGGGGGGCCCAAATGATGGCACAGGGGCAGGTGGGCT GGAGGGGCGCAGATGCCTGTGTTCAGGGAGGGTGGCCACCATGGGCCGAGGTCTCACCCAGGACCCCTTGCTCTG CTCCTCAGCCTTGCAGTCACGGCAGCACTATGGTGGACTGCCCATGGCCGTGTGACTTTGGGGGCAAGTGGGAGG GCGCCCTGAATAATGATTGCAAGGACAACAGGCAGAGGCTACCCTAGAGCAGGACACAGGGTGTGGTACTGACAA ACCAGTGGCCCAGGAGCCATGAGGACAGTTGTGTGCCACTGGAAGAGAAACTTTTTGAAAAACCCTAAATCAGGT AGAGAAAGCAAAAAATCTCTGGCCGTAAACCGTGCTCTCTAATTTATCGGCAGCTTCTGTGGATGACCTCTGATG AGCCCGGGCTGCGTCCACGCCCTGGGCAGGTAGGCGGGAGCTTCCCTGCGTGGGCCTCATTTCTTGCTGCAGAGA ATCTTTTGCACTAAGTCATGCTGTTTCCTCAAAGAAGCTTTGTTTTTTGTTAACGTATTACTCAGAGTCACCCAA GCCTCTTGGCTGAGGGTGAAGGTGGGACGGGAGGCGGGAGGGGGGCTGGTGGTGCCGCTCGTGCGGTGTCAACGCT GCAGGGAGTTGTGGCACCTTGGTGCCCTCTGAGCACCTGGCCGCCTGCTGTCCCCGGTGCCTGTGAAATTCGTCA TGCCATGACCCACCTGCATTAAACCTATTTTTTTAATGTG

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### 3083/6881 FIGURE 2843

 ${\tt MGGVGQRLPFAHPPGSRCCPAPTERKERAETSVMGARTPPLGWLPGPTLPVCTLRGSAHLPVAPAHMSSGRTAGW} \\ {\tt ALRSASLWASLQDHSCQGL}$ 

GGCCGGACGTGGAGAACATGAGCATCATCGGCTGGTTCGTGCGAAGCTTCAAGTACTTTTACGGGCTCCGCTTC GAGGTGCGGGACCCGCGCAGGCTGCAGGAGGCCCGTCCCTGTGTCATCGTCTCCAACCACCAGAGCATCCTGGAC ATGATGGCCTCATGGAGGTCCTTCCGGAGCGCTGCGTGCAGATCGCCAAGCGGGAGCTGCTCTTCCTGGGGCCC GTGGGCCTCATCATGTACCTCGGGGGCGTCTTCTTCATCAACCGGCAGCGCTCTAGCACTGCCATGACAGTGATG GCCGACCTGGGCGAGCGCATGGTCAGGGAGAACCTCAAAGTGTGGATCTATCCCGAGGGTACTCGCAACGACAAT GGGGACCTGCTGCTTTTAAGAAGGGCGCCTTCTACCTGGCAGTCCAGGCACAGGTGCCCATCGTCCCCGTGGTG TACTCTTCCTTCTCTCTCTACAACACCAAGAAGAAGTTCTTCACTTCAGGAACAGTCACAGTGCAGGTGCTG GAAGCCATCCCACCAGCGGCCTCACTGCGGCGGACGTCCCTGCGCTCGTGGACACCTGCCACCGGGCCATGAGG ACCACCTTCCTCCACATCTCCAAGACCCCCCAGGAGAACGGGGCCACTGCGGGGTCTGGCGTGCAGCCGGCCCAG TAGCCCAGACCACGGCAGGCATGACCTGGGGAGGGCAGGTGGAAGCCGATGGCTGGAGGATGGCCAGAGGGGAC TGTCACTGGCCTCAGACACAGGCCCCTGGTGTCCCCTGCAGGGGGCTCAGCTGGACCCTCCCCGGGCTCGAGGGC AGGGACTCGCGCCCACGGCACCTCTGGGAGCTGGGATGATAAAGATGAGGCTTGCGGCTGTGGCCCGCTGGTGGG CTGAGCCACAAGGCCCCGATGGCCCAGGAGCAGATGGGAGGACCCCGAGGCCAGACGCACACTGTCCGAGCCCT CTGCTCAGCCGCCTGGGACCCACCAGGGTGCAGCTGGGCTCCAGGGTCCAGCCCACAAGCTGCATCAGGCTCTCT GGGAGAGGGGGCCTGGAGGGCCAGGAGTCCCAGACTCACGCACCCTGGGCCACAGGGAGCCGGGAATCGGGGC CTGCTGCTCCTGCTGGCCTGGAAGACTCTGTGGGGTCAGCACTGTACTCCGTTGCTGTTTTTTTATAAACACACT CTTGGAAGTGG

#### 3087/6881 FIGURE 2847A

 ${\tt GGGGAGAACACTTCTTTGTCTGGGATTCCAACCAGCTCTGTCCTTAGCTTGTCTCTGCCTAGCAGTGTTGCCCAA}$ AGTAATTTTCCACAAGGTTCTGGTGCTTCCGAAATGGTTTCTAATCAGCCTGCTAATTTGCTGGTTCAACCACCA TCCCAGCCAGTTCCAGAGAACTTGGTTCCAGAAAGTCAAAAGGATCGTAAGGCAGGAAGTGCTCTTCCCGGATTT GCTAATAGCCCTGCTGGAAGCACAAGTGTGGTGTTAGTTCCACCTGCACACGGCACCCTGGTGCCTGATGGTAAT AAGGCAAACCATTCCAGTCATCAGGAAGACACTTACGGAGCCCTAGACTTTACCTTAAGCAGGACTTTGGAAAAAT CCTGTAAACGTGTACAACCCGTCCCATTCTGACAGCCTCGCTTCTCAGCAAAGTGTTGCCAGTCATCCCAGACAA TCTGGGCCTGGGGCGCCTAACCTTGACCGTTTTTATCAGCAGGTCACGAAAGATGCCCAGGGCCAGCCTGGCCTC GAAAGAGCCCAGCAGGAGCTGGTGCCACCCCAGCAACAGGCTTCTCCCCCACAACTACCCAAAGCCATGTTTTCG GAGCTGTCAAATCCAGAAAGTCTGCCCGCACAGGGACAGGCCCAGAACTCAGCACAGTCACCAGCAAGTCTGGTT CTGGTCGACGCGGGTCAGCAGCTGCCCCTCGGCCTCCTCAGTCCTCTAGCGTGTCTCTGGTGTCCAGTGGCTCC GGCCAGGCAGCTGTGCCGTCAGAGCAGCCGTGGCCACAGCCAGTGCCTGCACTTGCCCCCGGCCCACCGCCTCAG GACCTGGCCGCCTACTACTACCGGCCTTTGTACGATGCCTACCAGCCTCAGTACTCTTTGCCGTACCCACCG GAGCCTGGCGCAGCCTCCCTCTATTACCAGGATGTCTACAGCCTCTATGAGCCTCGATACAGGCCCTATGATGGT TACTATGCAAGCTATTACTCCAGCCAGTACGATTATGGAGATCCAGGTCACTGGGATCGTTACCACTACAGTGCT AGAGTCAGGGACCCCCGCACCTATGACCGGAGGTATTGGTGTGATGCAGAGTATGACGCATACAGGAGAGAGCAC TCTGCCTTCGGGGACAGGCCCGAGAAACGTGACAACAGCTGGAGGTACGATCCTCGCTTCACGGGGAGTTTTGAC CGGAGCCTGCACAGCGCACACAGCCTGGCCAGCCGCAGCAGCCTCAGCTCCCACTCGCACCAGAGTCAGATT TACAGAAGCCACAATGTGGCTGCCGGTTCCTACGAGGCCCCGCTTCCTCCAGGCTCCTTTCACGGCGATTTTGCC TACGGCACCTACCGCAGCAATTTCAGCAGTGGCCCCGGCTTCCCAGAGTATGGCTACCCTGCCGACACCGTCTGG CCTGCCATGGAGCAAGTTTCATCAAGACCAACTTCTCCTGAAAAATTTTCAGTGCCTCATGTCTGTGCCAGGTTT GGCCCTGGCGGTCAGCTTATCAAAGTGATTCCCAATCTGCCTTCAGAAGGACAGCCGGCCTTGGTGGAGGTCCAC AGCATGGAGGCCTTGCTGCAGCACACGTCTGAGCAGGAGGAGATGCGGGCGTTCCCGGGACCCCTGGCCAAAGAC GACACCCATAAGGTGGATGTCATTAATTTTGCACAGAACAAAGCTATGAAATGTTTGCAGAATGAAAACTTAATT GACAAAGAGTCTGCAAGTCTTCTTTGGAATTTTATTGTTCTCTTATGCAGACAAAATGGGACCGTGGTAGGGACC GACATTGCGGAGCTTCTGTTACGAGACCACAGAACAGTGTGGCTTCCTGGGAAGTCGCCCAATGAAGCAAACCTG ATTGATTTCACGAATGAGGCAGTGGAGCAGGTGGAAGAGGAGGTCTGGTGAGGCCCAGCTCTCTTTCCTCACT GGTGGTCCGGCGGCTGCCGCCAGCTCGAGAGAGAGACCGAGAGGTTCAGGGAGCTGTTGCTGTATGGCCGT AAGAAGGATGCTTTGGAGTCTGCAATGAAGAATGGCCTGTGGGGTCACGCTCTGCTACTTGCAAGTAAGATGGAC AGCCGGACACGCCCGAGTCATGACCAGGTTTGCTAACAGCCTCCCAATCAACGACCCTCTGCAGACAGTCTAC CAGCTCATGTCCGGACGGATGCCTGCCGCGTCCACGTGCTGTGGAGACGAGAAATGGGGAGATTGGAGGCCGCAC  $\verb|CTCGCCATGGTCTTGTCCAACTTGAACAACAACATGGACGTCGAGTCCAGGACGATGGCTACCATGGGCGACACT|\\$ CTGGCTTCAAGGGGCCTCTTGGATGCGGCCCACTTCTGCTACCTCATGGCCCAGGCGGGATTTGGTGTTTACACG ATCCAGAGGACGGAAGCCTATGAGTACGCCCAGTCCCTGGGTGCCGAGACCTGCCCCGGCCTAGTTTCCAGGTG TTTAAGTTCATCTACTCCTGCCGCCTGGCGGAAATGGGGCTGGCCACGCAAGCCTTCCACTACTGTGAGGCCATC TTACGACTCTTCGATCCCCAGCTGAAAGAGAAGCCAGAAGAGAGGAGTCCTTGGCCGCACCCACGTGGCTGGTTCAC CTGCAGCAGGTGGAGCGGCAGATTAAGGAGGGGGCCTGGAGTATGGCATCAGGATGGAGCCCTCCCGCAGCAGTGT AACCCTCTGCTGGCGGTGCCTGCACCGAGCCCTGAGCACTCGAGCCCGAGCGTGCGGCTGCTGCCCTCAGCTCCG CAGACGCTCCCTGACGGCCCATTGGCCAGTCCTGCCAGAGTGCCGATGTTCCCAGTGCCACTGCCCCCGGGGCCC CTGGAGCCGGGTCTGGCTGTGACCCCAGGGCCTGCACTTGGCTTCCTGGAGCCCTCCGGGCCTGGCCTCCCA CCTGGTGTGCCACCTCTGCAGGAAAGGAGACACTTGCTCCAGGAAGCCAGGAGCCCAGACCCAGGGATAGTGCCG CAGGAGGCGCCTGTTGGAAACTCACTTTCCGAGCTAAGCGAAGAAAATTTTGATGGAAAAATTTGCTAATCTGACC 

#### 3088/6881 FIGURE 2847B

GGTGAATCCTGGTTCTTTCGTTGGCTACCTGGAAAGAAAAAGACAGAAGCTTATTTGCCAGATGACAAGAACAAA TCGATTGTTTGGGATGAAAAGAAAACCAGTGGGTGAATTTAAATGAGCCAGAAGAGGAGAAGAAAGCCCCCGCCC CCACCTCCAACCTCGATGCCCAAGACTGTGCAAGCTGCCCCGCCTGCCCTCCCAGGGCCTCCTGGAGCCCCCGTG AACATGTACTCTAGAAGAGCAGCAGGAACCAGAGCTCGCTACGTTGACGTCCTGAACCCAAGCGGGACCCAGCGG AGCGAGCCGGCTCTCGCTGCGGACTTTGTCGCTCCACTCGCGCCACTCCCAATTCCTTCTAACTTGTTCGTG CCAACCCCAGTGAGACCCCAGGGACGTTCGGGACGGAATGATGGCCTCCTCGCTCTCATCCCCAGATGCAGAA GAACCACAGCTTCCAGACGGGACTGGCAGGGAAGGGCCTGCAGCAGCTAGGGGCCTGGCCAATCCAGAGCCTGCC CCAGAGCCCAAGGTTTTAAGCTCTGCAGCGTCACTCCCTGGCTCTGAACTCCCCTCCTCCAGGCCTGAGGGTTCC CAGGGAGGAGAGCTTTCGCGCTGTAGTTCAATGAGTTCATTATCACGTGAAGTGAGCCAGCATTTTAATCAGGCT CCTGGCGACCTCCCTGCTGCAGGGGGCCCTCCCAGCGGGGCCATGCCCTTCTACAACCCTGCTCAGCTGGCACAG GCCTGCGCCACCTCCGGGAGCTCAAGGCTAGGGAGGATTGGCCAGAGGAAGCACCTGGTGCTGAACTAGGCTTGC GTCCCGCCCCAGGGAGACACAGCAGTGACTCAGAGCTGGTCGCACACTGTGCCTCCTCCTCACCGCCCATCGT TGTTTGCCGAAAAGAATGATGTGACTTTCTTAGTCATTTAGGATGATTTAAGGATATAGTATTCCTGGTCATTTA AGAATGTTCATTCATTGAAGCCGGAGCTGTCTCTGCCACAGGAGAGCCACATGGTCGGTAGTAACCAGGGCCTCT CCAAGCCCAGCTGTGAGTCACTGCCCAGTGAGTCCCGCGCTTCCTTTAAGGTGCTGGGAGCAAAGAGAGGGTGAC TGAGGCAGACCCCAACCCTGCTCTGCACCATCTGGGCCCTCGCCGTGTTTGAACCTGGCTGAATGAGTGGAGGG CTTAGTTACTGCAGTGAATTTCTTTCCTGTTGCAAAGACGCTTCCAGCCTCACTTTACTTTCTGTGGCCTGATGA GGACCATGGGTGATTTTGTGTACCCAAAGCGCTGGGGACTGCCCACCGTGTGGCCCAGTCACTGGGAAGGAGCCC CAGAGAGCCGGCTGTCTGACATGATGGCTCAGGGTGGTCATCCAGGTTGAAAACTGACCGTGTGATGTTTGATTT GGGCTTCATTTCGTGTGTAGGAGCACGGTTAGACTCACTGTTAAGGAAGCTGGATGCACTTCTCTAAAAGGCTGC ACTTTCCGTGAGCACTTTTCGTGGTACAATCCACATGACCCACTTTCTCCCCTGGGGGACGTTGGTTCAGAGGTT GGTAGCACTTGGGGAGAGTATCTTAACACAGTTTCTTGACAGCAGCTCTGGAACTTAGTATTTCTGCCCCGAGTT  ${\tt TTGCCACACTGAGACTTTGAGTAGCTCCTGGTGGACTCAACCCTGTTCAACTCAGAGACGGGCCTCCTCACTG}$ ATGCAAAGCTTTAAGGCTTCTCTGACTGTTCTGAAACTCTTCGTATTCTTGTCAAGTCTAAAGAGACTGAAGAAA AGATTTAAATACTAATAAAAATCAGTAGATAATTTCTGTAGGTTCTGCTGGAGGAATACAAACTGTTTGGTGTTT TAGCCCAGACCACCCAGGATGTTTTCCAAAATGTTCCACAGGCGTGTCCCGCTGGATCCATTTGTCCTTGTCACT TGGAGAAAGGCCAGTCCCTGTGACGGGGCAGCCCTCTCTGTCCCTCGGTCAGCTCGTGTGAATCCTGGGACCTCT TCCGGTCGGCTCTGCCCGCTGTTCTGGGGTCGACTGCCACGACTTTTGATTCAAGAAGCTTCCTCCAGGCGGGAG 

METLCAPQVCPLPLNSTTEAVHMLPHAGAPPLDTVYPAPEKRPSARTQGPVKCESPATTLWAQSELPDFGGNVLL APAAPALYVCAKPOPPVVOPPEEAMSGOOSRNPSSAAPVOSRGGIGASENLENPPKMGEEEALOSOASSGYASLL SSPPTESLQNPPVLIAQPDHSYNLAQPINFSVSLSNSHEKNQSWREALVGDRPAVSSWALGGDSGENTSLSGIPT SSVLSLSLPSSVAOSNFPOGSGASEMVSNOPANLLVOPPSOPVPENLVPESQKDRKAGSALPGFANSPAGSTSVV LVPPAHGTLVPDGNKANHSSHQEDTYGALDFTLSRTLENPVNVYNPSHSDSLASQQSVASHPRQSGPGAPNLDRF YQQVTKDAQGQPGLERAQQELVPPQQQASPPQLPKAMFSELSNPESLPAQGQAQNSAQSPASLVLVDAGQQLPPR PPQSSSVSLVSSGSGQAAVPSEQPWPQPVPALAPGPPPQDLAAYYYYRPLYDAYQPQYSLPYPPEPGAASLYYQD VYSLYEPRYRPYDGAASAYAONYRYPEPERPSSRASHSSERPPPROGYPEGYYSSKSGWSSOSDYYASYYSSOYD YGDPGHWDRYHYSARVRDPRTYDRRYWCDAEYDAYRREHSAFGDRPEKRDNNWRYDPRFTGSFDDDPDPHRDPYG EEVDRRSVHSEHSARSLHSAHSLASRRSSLSSHSHQSQIYRSHNVAAGSYEAPLPPGSFHGDFAYGTYRSNFSSG PGFPEYGYPADTVWPAMEQVSSRPTSPEKFSVPHVCARFGPGGQLIKVIPNLPSEGQPALVEVHSMEALLQHTSE QEEMRAFPGPLAKDDTHKVDVINFAQNKAMKCLQNENLIDKESASLLWNFIVLLCRQNGTVVGTDIAELLLRDHR TVWLPGKSPNEANLIDFTNEAVEQVEEEESGEAQLSFLTGGPAAAASSLERETERFRELLLYGRKKDALESAMKN GLWGHALLLASKMDSRTHARVMTRFANSLPINDPLQTVYQLMSGRMPAASTCCGDEKWGDWRPHLAMVLSNLNNN MDVESRTMATMGDTLASRGLLDAAHFCYLMAQAGFGVYTKKTTKLVLIGSNHSLPFLKFATNEAIQRTEAYEYAQ SLGAETCPLPSFQVFKFIYSCRLAEMGLATQAFHYCEAIAKSILTQPHLYSPVLISQLVQMASQLRLFDPQLKEK PEEESLAAPTWLVHLQQVERQIKEGAGVWHQDGALPQQCPGTPSSEMEQLDRPGLSQPGALGIANPLLAVPAPSP EHSSPSVRLLPSAPQTLPDGPLASPARVPMFPVPLPPGPLEPGPGCVTPGPALGFLEPSGPGLPPGVPPLQERRH LLQEARSPDPGIVPQEAPVGNSLSELSEENFDGKFANLTPSRTVPDSEAPPGWDRADSGPTQPPLSLSPAPETKR PGQAAKKETKEPKKGESWFFRWLPGKKKTEAYLPDDKNKSIVWDEKKNQWVNLNEPEEEKKAPPPPPTSMPKTVQ AAPPALPGPPGAPVNMYSRRAAGTRARYVDVLNPSGTQRSEPALAPADFVAPLAPLPIPSNLFVPTPDAEEPQLP DGTGREGPAAARGLANPEPAPEPKVLSSAASLPGSELPSSRPEGSQGGEAPGDLPAAGGPPSGAMPFYNPAQLAQ ACATSGSSRLGRIGQRKHLVLN

TTACCTGGAGTACCCAAGCCTGTTTTTGCTACAGTTGATGGACAGGAAAAGTTTGAAACCAAAGTAACCACATTG GATAATGGGCTTCGCGTGGCATCTCAGAATAAGTTTGGACAGTTTTGTACAGTAGGAATTCTTATCAATTCAGGA TCGAGATATGAAGCGAAATACCTTAGTGGAATTGCTCACTTTTTGGAAAAATTGGCATTTTCGTCTACTGCTCGA TTTGACAGCAAAGATGAAATTCTGCTTACGTTGGAAAAGCATGGGGGGTATCTGTGACTGCCAGACATCAAGAGAC ACCACCATGTATGCTGTGTCTGCTGATAGCAAAGGCTTGGACACGGTGGTTGCCTTACTGGCTGATGTGGTTCTG CAGCCCGGCTAACAGATGAAGAAGTCGAGATGACGCGGATGGCGGTCCAGTTTGAGCTGGAGGACCTGAACCTG CGGCCTGACCCAGAGCCACTTCTCACCGAGATGATTCATGAAGCGGCTTACAGGGAGAACACAGTTGGCCTCCAC CGTTTCTGCCCCACAGAAAACGTAGCAAAGATCAACCGAGAGGTGCTGCATTCCTACCTGAGGAACTACTACACT CCCGACCGCATGGTGCTGGCCGGCGTGGGCGTGGAGCACGAGCATCTGGTGGACTGTGCCCGGAAGTACCTCCTG GGGGTCCAGCCGGCCTGGGGGGGCCGAGAGGCCGTGGATATTGACAGATCTGTGGCCCAGTACACTGGGGGGGATT GCCAAGCTAGAAAGAGACATGTCCAATGTCAGCCTGGGCCCGACCCCCATCCCGAGCTCACGCACATCATGGTT GGACTGGAGAGCTGCTCCTTCCTGGAGGAGGACTTCATCCCCTTTGCAGTGTTGAACATGATGATGGGCGGAGGT GGCTCCTTCTCGGCTGGTGGGCCCGGCAAGGGCATGTTCTCCAGGCTCTACCTCAACGTGCTCAACAGGCACCAC TGGATGTATAACGCGACCTCCTACCACCACAGCTACGAGGACACTGGCCTCCTTTGCATCCATGCCAGCGCCGAC CCAAGACAGGTTCGAGAAATGGTAGAAATCATCACAAAGGAGTTTATTTTAATGGGCGGAACCGTGGACACGGTG GAGCTGGAACGAGCCAAGACGCAGCTGACATCAATGCTCATGATGAACCTGGAATCCAGGCCTGTGATCTTCGAG GATGTGGGGAGGCAGGTGCTGGCCACTCGCTCCAGAAAGCTGCCGCACGAGCTGTGCACGCTCATCCGCAACGTG AAGCCGGAAGATGTGAAGAGAGTCGCTTCTAAGATGCTCCGAGGGAAGCCGGCAGTGGCCGCCCTGGGTGACCTG ACTGACCTGCCCACGTATGAGCACATCCAGACCGCCCTGTCGAGTAAGGACGGCCGCCTGCCCAGGACGTACCGG TTTGGACACGAATTTAGTCTAAAAAGCTGTCTGGTTGTATAAACGGTGCAAACAATGTCGCCACAGCACCCACGC GGTTTGCATTCTTTTGGAACTCAATGTGCCGATCAGTGGAGTCAGTATCGAGCCTGACCACCGCAAGCCAGGAAG CACATGGGGCCCCGCAGGTTCCTTGGAGGAGCCCTGAGCTGGGAGGCAGCAAAGGCTGACCTATCAAAGCCTCCC GGAGGCCACCGTGCTGGGTACCAGGACTCACCTCTGACAAGCAGGAGAAGGTAAGGGCCCGGTCAGCTCCAAGGA 

MAAVVLAATRLLRGSGSWGCSRLRFGPPAYRRFSSGGAYPNIPLSSPLPGVPKPVFATVDGQEKFETKVTTLDNG LRVASQNKFGQFCTVGILINSGSRYEAKYLSGIAHFLEKLAFSSTARFDSKDEILLTLEKHGGICDCQTSRDTTM YAVSADSKGLDTVVALLADVVLQPRLTDEEVEMTRMAVQFELEDLNLRPDPEPLLTEMIHEAAYRENTVGLHRFC PTENVAKINREVLHSYLRNYYTPDRMVLAGVGVEHEHLVDCARKYLLGVQPAWGSAEAVDIDRSVAQYTGGIAKL ERDMSNVSLGPTPIPELTHIMVGLESCSFLEEDFIPFAVLNMMMGGGGSFSAGGPGKGMFSRLYLNVLNRHHWMY NATSYHHSYEDTGLLCIHASADPRQVREMVEIITKEFILMGGTVDTVELERAKTQLTSMLMMNLESRPVIFEDVG RQVLATRSRKLPHELCTLIRNVKPEDVKRVASKMLRGKPAVAALGDLTDLPTYEHIQTALSSKDGRLPRTYRLFR

CCATGGAGCCGCCGCCGGGCTAGGCAGGTCGTGCCCCGCCGGGCCGGCGGCGATGTCGGGCTACCAGCGCCG CCCGGGCGCCACCCCGCTGTCCCGAGCCCGGAGCCTCGCCATTCCCGACGCTCCAGCGTTCTATGAGCGCCGGTC CTTTATGTGCTATGTGCCCAGCCCGGTGCTGGCTTCCGTGGGAGACACAGATTTTGGCTATGGAAAGGGGAAATG TTCTAAGCAGAGCCCGTCAGGAGCCCACGGGACACATTTTGGAGATGACAGATTTGAAGATCTGGAAGAGGCAAA TCCATTCTCTTTTAGAGAGTTTCTGAAGACCAAGAACCTCGGCCTCTCGAAAGAGGATCCGGCCAGCAGAATTTA TGCAAAGGAAGCCTCGAGGCATTCCCTGGGACTTGACCACAACTCCCCACCCTCCCAAACCGGCGGGTATGGCCT GGAGTATCAGCAGCCATTTTTCGAGGATCCGACAGGGGCTGGTGACCTCCTGGATGAGGAGGAGGATGAGGACAC CGGATGGAGTGGGGCCTACCTGCCGTCCGCCATCGAGCAGACTCACCCCGAGAGGGTCCCTGCCGGCACGTCGCC CTGCAGCACATACCTTTCCTTTTTCTCCACCCGTCGGAGCTGGCAGGGCCTGAGTCTCTGCCCTCGTGGGCGTT GAGTGACACTGATTCTCGCGTGTCTCCGGCCTCTCCGGCAGGGAGTCCTAGCGCAGACTTTGCGGTTCATGGAGA GTCTCTGGGAGACAGGCACCTGCGGACGCTGCAGATAAGTTACGACGCACTGAAAGATGAAAATTCTAAGCTGAG AAGAAAGCTGAATGAGGTTCAGAGCTTCTCTGAAGCTCAAACAGAAATGGTGAGGACGCTTGAGCGGAAGTTAGA AGCAAAAATGATCAAGGAGGAAAGCGACTACCACGACCTGGAGTCGGTGGTTCAGCAGGTGGAGCAGAACCTGGA GCTGATGACCAAACGGGCTGTAAAGGCAGAAAACCACGTCGTGAAACTAAAACAGGAAATCAGTTTGCTCCAGGC GCAGGTCTCCAACTTCCAGCGAGAGAATGAAGCCCTGCGGTGCGGCCAGGGTGCCAGCCTGACCGTGGTGAAGCA GAACGCCGACGTGGCCCTGCAGAACCTCCGGGTGGTCATGAACAGTGCACAGGCTTCCATCAAGCAACTGGTTTC CGGAGCTGAGACACTGAATCTTGTTGCCGAAATCCTTAAATCTATAGACAGAATTTCTGAAGTTAAAGACGAGGA GGAAGACTCTTGAGGACCCCTGGGTGTTCTCAGCATGAAGCTCCGTGTATACCCTGAGGTCACCACCGCTCGATC TAAATGTGCAGTTGTGTCCTTAAATATGCAGTCTTCACCCAGAGTAAAGTGTTGATCGCAAGAGTCCAGTGTCGT GCCCTCAGCCAGTTCTTGGCCACCACAATGGGAGCAGCCCTGGCCGAGTTGTCTCTGTGGTTTCTATGCAGCCCT TCTTGGCGAAATTCCTGCGATCTTATAGATTCTAATGAGCTCTTGGAAGACATTGTCATAAAAGCCAGTGATTTT AAGAAAAAGAGTGGTTCTGGAATCAATGTTTTCCAGTCCCATCCCAGAACATCAGTTGTAAGATAAGTACAATTG GTTGTCCTTGATTTCATAAGTAGAACAACACTAAATGTGCCTCTGAGATGGCCACCCCGGGCAGGGACCTGTGC GGCCTGAGTGCGCAGGGGCCACCGCGTGGCTGCTGCTGCTCCTCCGGGACCCACGGGGACCAAGGTCACACGT TCCGTGCTGTGAAGCTGTCCAGATGTGCCTCTTTGGCTGGGGGGTTCTGGTGGACGTTTCAAGTGGCATTTTGTAC AATGCAGGTTAGAATTCAGGAATTTCAAGTATGTGCCCGGGTCTGTCAGGTCCCAGTTGCCTTTCTGACGGCCCC CCTCCTGTTCCAATTGATAGCTTTCTTATTTAATAAATTCTGTAGTTCACCGC

CTGTGTAGGGCATGGACACAGGGAGCTCATGGCAGGGCTGACACAGGGTGTGGTGGGCACAGGGACAGGAGGCAC GGGAGGCTTCCCGGGATGTCTGGGAAGTGTTCCAGGCCAAGGCTGGGGAGGCTGGCCCAGGGCAGGTGACGGACA GAGGCCTGGACTGGGGTAGCACCCATGAGAGGGGAGAAGTCCGGGGGCAGTCGGCGGGTGCCGAGGGAGCATCCCG AGGGCCCCGTCTTCGGACGAGGAGTGCTTCTTTGACCTGTTGACCAAGTTCCAGAGCAGCCGCATGGACGACCAG CAGCCCTCGATGACGGCCTCGCCCCAGACCGAGGAATTCTTCGACCTCATCGCCAGCTCCCAGAGCCGCCGGCTG GACGACCAGCGGGCCAGCGTGGGCAGCCTGCCGGGGCTGCGAATCACCCACAGCAATGCAGGGCACCTCCGAGGC CACGGCGAGCCCCAGGAGCCGGGGGACGACTTCTTCAACATGCTCATCAAGTACCAGTCCTCCAGGATCGATGAC CAGCGCTGCCCACCACCTGACGTACTGCCCCGGGGCCCTACCATGCCGGACGAGGACTTCTTCAGCCTCATTCAG AGGGTGCAGGCTAAGCGCATGGACGAGCAGCGGGTGGACCTCGCCGGGGGCCCGGAGCAGGGGGCAGGCGGCCCG CCCGAGCCCCAGCAGCAGTGCCAGCCTGGTGCGAGCTAAGGCCCTGTGCCCACCGCCAGGCCCACCCTGCCCCCA  $\verb|CCCACGGCCTCCCGACCCAGGGCGACAGGCTCAGGCCAAGCTGCCCGTGGTGGGAGGGCGTGCTTCCATCCCG|$  $\mathsf{GGCTGGCCCC}$ CCCGACCTGGTGCTGTCAGACTCCCGCATCCTCTCCCCCAAGCCCTTCCCGTTCTGCCCTGCCCAAATGTG AAACCCTGCTGTCTCCCCCACCCTCCCCAAAGGTGTCTCTGAGCCGCCTCTTGGGGCCACCAAGGACAGGGCCAT GTTCTGTCCCCCAGAGCTGGTCTTGGGATGGCCGTGTGACAGGCATGCTCCACCCCTCCAGCTTCGTCCTGGGG CAGGGCTCCCTCCAAGCCTGTCTCCCCACTCCCCGGCCAGAGGTCAGCAACCACAGAAGGCCCCCCAGACCACGC ATGGCAGACCAGGCTGCAGTGGCAGCCCTGAGGTGCCCCCCGCGAGTCCCAGGGCCCTGCAGGGGCCTCGACAG GAGCCGGGCCTATCTCTAAAGCAGAGGGAATGGCTGGGCATGAACTTCGACATTCCAAAACCCCAAGCCAGGAAA AAGGGCAGGGCCTGGTCCTAGGGATGCTTACTGGCAGCAAGAGCAGTGCCCAGTCAGGGTGGGAGGTAGCACCAG GCTCTGTGACCCTCACCCAAGTGGGGGGGTGGTCAGTGGAAGCTGGGGAGGCTTCACTCAGCTCAACCCTGCAGA CCCCCATATGAGAACCCCCCTCCTCCCACCAGCTGGGGGAGATGACATCACTGCTCTCTCCATGGGGAGGGGGC GTTGCCTCCTGTCCAGACCCAGCCTTGGCACCTCCCAAGACTGCCAAGGGCCCTACCATGGCCCCACAGCCC CCTGGTGAGGTGACCTGCTTCTGGAGGGGCAGGGCCGCACCCGAGAGCAGGGACAGGTGCCCGAACACAGGGTCT GGGTCCTTTCCAACCCAAGAGGTACATTTGTTTTTCTGTTTTTCCTGAAAAATAAAGTCGGCCAAGTGAG

MALSFLPSAPAAGRTGPSACRPRPGAVRLPHPLPQALPVLPCPAKCETLLSPPPSPKVSLSRLLGPPRTGPCSVP PELVLGWPCDRHAPPLQLRPGAGLPPSLSPHSPARGQQPQKAPQTTHGRPGCSGSPEVPPAESQGPAGASTGAGP ISKAEGMAGHELRHSKTPSQEKGQGLVLGMLTGSKSSAQSGWEVAPGSVTLTQVGGWSVEAGEASLSSTLQTPHM RTPLLPPAGGDDITALSMGRGLTGHQVRDPRTGRTCWSLRWAPGA

GGCCGGACGTGGAGAACATGAGCATCATCGGCTGGTTCGTGCGAAGCTTCAAGTACTTTTACGGGCTCCGCTTC GAGGTGCGGGACCCGCGCAGGCTGCAGGAGGCCCGTCCCTGTGTCATCGTCTCCAACCACCAGAGCATCCTGGAC ATGATGGCCTCATGGAGGTCCTTCCGGAGCGCTGCGTGCAGATCGCCAAGCGGGAGCTGCTCTTCCTGGGGCCC GTGGGCCTCATCATGTACCTCGGGGGCGTCTTCTTCATCAACCGGCAGCGCTCTAGCACTGCCATGACAGTGATG GCCGACCTGGGCGAGCGCATGGTCAGGGAGAACCTCAAAGTGTGGATCTATCCCGAGGGTACTCGCAACGACAAT GGGGACCTGCTGCCTTTTAAGAAGGGCGCCTTCTACCTGGCAGTCCAGGCACAGGTGCCCATCGTCCCCGTGGTG TACTCTTCCTTCTCTCTACAACACCAAGAAGAAGTTCTTCACTTCAGGAACAGTCACAGTGCAGGTGCTG GAAGCCATCCCACCAGCGGCCTCACTGCGGCGGACGTCCCTGCGCTCGTGGACACCTGCCACCGGGCCATGAGG ACCACCTTCCTCCACATCTCCAAGACCCCCCAGGAGAACGGGGCCACTGCGGGGTCTGGCGTGCAGCCGGCCCAG TAGCCCAGACCACGGCAGGCATGACCTGGGGAGGCAGGTGGAAGCCGATGGCTGGAGGATGGCAGAGGGGAC TGTCACTGGCCTCAGACACAGGCCCCTGGTGTCCCCTGCAGGGGGCTCAGCTGGACCCTCCCCGGGCTCGAGGGC AGGGACTCGCGCCCACGGCACCTCTGGGAGCTGGGATGATAAAGATGAGGCTTGCGGCTGTGGCCCGCTGGTGGG CTGAGCCACAAGGCCCCGATGGCCCAGGAGACAGATGGGAGGACCCCGAGGCCAGACGCACACTGTCCGAGCCCT CTGCTCAGCCGCCTGGGACCCACCAGGGTGCAGCTGGGCTCCAGGGTCCAGCCCACAAGCTGCATCAGGCTCTCT GGGAGAGGGGCCTGGAGGGCCAGGAGTCCCAGACTCACGCACCCTGGGCCACAGGGAGCCGGGAATCGGGGC CTGCTGCTGCTGGCCTGGAAGACTCTGTGGGGTCAGCACTGTACTCCGTTGCTGTTTTTTTATAAACACACT CTTGGAAGTGG

MELWPCLAAALLLLLLLVQLSRAAEFYAKVALYCALCFTVSAVASLVCLLRHGGRTVENMSIIGWFVRSFKYFYG LRFEVRDPRRLQEARPCVIVSNHQSILDMMGLMEVLPERCVQIAKRELLFLGPVGLIMYLGGVFFINRQRSSTAM TVMADLGERMVRENLKVWIYPEGTRNDNGDLLPFKKGAFYLAVQAQVPIVPVVYSSFSSFYNTKKKFFTSGTVTV QVLEAIPTSGLTAADVPALVDTCHRAMRTTFLHISKTPQENGATAGSGVQPAQ

GGCGCCTGGCGCACCTGGTGCTCTTCTGCCCCTTCTCCAAGCGCCTGCAGGGCCGGCTCCCAGGCCTCAGGGTCC AGCGCTGTCGCGGCCATGTCTGCCAGGTGGTCATTTGTGACCAGTACCGCAAGGGGATCATCTCGGGCTCCGTCT  ${\tt GCCAGGACCTGTGTGAGCTGCAT} \underline{{\tt ATC}} {\tt GTGGAGTGGAGGACCTGCCTCTCGGTGGCCCCGGGCCAGCAGGTGTACA}$ GCGGGCTCTGGCGGGACAAGGATGTAACCATCAAGTGTGGCATTGAGGAGACCCTCGACTCCAAGGCCCGGTCGG ATGCGGCCCCCGGCGGAGCTGGTACTGTTTGACAAGCCCACCCGGGGCACCTCCATCAAGGAATTCCGGGAGA TGACCCTCAGCTTCCTCAAGGCGAACCTGGGAGACCTGCCTTCCCTGCCGGCGCTGGTTGGCCAGGTCCTGCTCA TGGCTGACTTCAACAAGGACAACCGGGTGTCCCTGGCGGAAGCCAAGTCCGTGTGGGCCCTGCTGCAGCGTAACG AGTTCCTGCTGCTGCTGCCGGAGAAGGAGCACGCCTCCAGACTGCTGGGGCTACTGTGGGGACCTCTACC TCACCGAGGGCGTGCCGCATGGCGCCTGGCACGCGGCCCCTTCCACCCCTGTTGCGCCCACTGCTGCCGCCTG CCCTGCAGGGTGCTCTCCAGCAGTGGCTGGGGCCTGCGTGGCCTTGGCGGGCCAAGATCGCCATCGGCCTGCTGG AGTTCGTGGAGGAGCTCTTCCACGGCTCTTACGGGACTTTCTACATGTGTGAGACCACACTGGCCAACGTGGGCT ACACAGCCACCTACGACTTCAAGATGGCCGACCTGCAGCAGGTGGCACCCGAGGCCACCGTGCGCCGCTTCCTGC AGGGCCGCCGCTGCGAGCACAGCACCGACTGCACCTACGGGCGCGACTGCAGGGCCCCGTGTGACAGGCTCATGA GGCAGTGCAAGGGCGACCTCATCCAGCCCAACCTGGCCAAGGTGTGCGCACTGCTACGGGGCTACCTGCTGCCTG GCGCGCCGGCCGACCTCCGCGAGGAGCTGGGCACACAGCTGCGCACCTGTACCACGCTGAGCGGGCTGGCCAGCC AGGTGGAGGCCCATCACTCGCTGGTGCTCAGCCACCTCAAGACTCTGCTCTGGAAGAAGATCTCCAACACCAAGT AGGAATCCTGTCAGAAGATGTGAAATGCAACTGTGTTGCAAAATCACTCCCCTACCGTCAGGGCTCTGGATTCCA GCACCACAGACATGAGACCCCAGCTCGGAGCAAAGGCGGACATGGACATCCCGGCAGGAGAGTCCTCCAAGGGGG TTTGTTACTCTGAAGAACGTAATGTCAATAAACAGCTTTTATGTAATGCCCAGGGCTG

MVEWRTCLSVAPGQQVYSGLWRDKDVTIKCGIEETLDSKARSDAAPRRELVLFDKPTRGTSIKEFREMTLSFLKA NLGDLPSLPALVGQVLLMADFNKDNRVSLAEAKSVWALLQRNEFLLLLSLQEKEHASRLLGYCGDLYLTEGVPHG AWHAAALPPLLRPLLPPALQGALQQWLGPAWPWRAKIAIGLLEFVEELFHGSYGTFYMCETTLANVGYTATYDFK MADLQQVAPEATVRRFLQGRRCEHSTDCTYGRDCRAPCDRLMRQCKGDLIQPNLAKVCALLRGYLLPGAPADLRE ELGTQLRTCTTLSGLASQVEAHHSLVLSHLKTLLWKKISNTKYS

CTCTGCGTGCGCGGAGGCTGCCGTGGCGGTGGGCCGCCTGACTTCTCCTCCCGGCCAGTTCTCGAGCGCCTCA CCGGGCCTCGCCCTGCAGCCTCCGCTCTCGCTGCGCGCCTAGGGGACTGGGCTGCTCGGGTGC GGGGTGGGGGCAGGCTCCGGCCGTCCTGGCCGCGCGAGCCGCGGATGGGGGCCCGGGCCGCGAGGAG CCTGGACGTCTGCTCACTGGAGATGACACGTGCGTGGGGTGTTGGCATTCTTGTTATTTAACACGGGAAGGAGGT GACTTCGCCTGTGATGGACTTCCAGTGTGAGCACTGGCCAGAGTGACCAGCCTGACCAGCACCAGCCCTGATCCA CCCCTCTGGGACCACTGGCACTCAGGGTGTTTGCAGCCTCAGAGCCCACCTGCCCCCAGGGCCACAGCTGCATC GTATTCCTGCCGGCCAGGGCCACTGCCAGGACCACGCCTCCCTTTTCATATCCCGATTCTTAAGTTCTGCTATT GTGGTATTCTGGTGGAGAAAAAAGAACCGCGTGGCTGTTTTTGAACTGCCTGGAACCTAAGACCCTGAATTCTTT TCCCCCCAAGGGGAAAATCTATATGGAAAACATTTATTTTAAAATACAGGATGAAGTGAATTAAAAGATTTAAA TGCACATTTCTTTAAGGATAATATTTCTGTGTTGGCAAAATTTGAGAGTAAATTGGTCTTGAATGGAATGGATTG TCTTGACTCACACATTGCGGAGCAGAGCCCGCCCTGAAGAAAGGTGTTGCTGTGGTGGGATCTTCCCACGAGGGT CCTTGCCTGTTCTCCTAGGGGATGGTTGCTGGGTGCCCTGGGCTACTGGGGAGAGCGTACGGGGCTGGAGAAGAT GGCCATTCCTGGGCTGTTTCCTAGGGAATGAGTTGTACATCTCATGGCTGGATTTTGTAAAATCAGTTTTTAAAA TACCGCATATATCTGTTTTCTTACTGG

 ${\tt MVNLGLSRVDDAVAAKHPGLGEYAACQSHAFMKGVFTFVTGTGMAFGLQMFIQRKFPYPLQWSLLVAVVAGSVVS} \\ {\tt YGVTRVESEKCNNLWLFLETGQLPKDRSTDQRS} \\$ 

MAVADLALIPDVDIDSDGVFKYVLIRVHSAPRSGLRLQRARRSCAATSGLSTMRTSTTKCRATCRSKAATVSVWA AGASPTRVRTRFTCTAIPWPMVLPSTPFQLRKSKPSTPTTRSPGLTTATEHSQPGACCLQQPLQSPAFACTPLA GLALPAPAAASGDVLSTRPWRQASLATELNVLPHLPAS

MAESDWDTVTVLRKKGPTAAQAKSKQAILAAQRRGEDVETSKKWAAGQNKQHSITKNTAKLDRETEELHHDRVTL EVGKVIQQGRQSKGLTQKDLATKINEKPQVIADYESGRAIPNNQVLGKIERAIGLKLRGKDIGKPIEKGPRAK

ACGGCAACGGGGGCCTCTACTGCGCGCTGGAGGACCACAAGATCCTGGAGGACATCGAGCCCCGGGGAGTGGAGT TTGTGCACGTGTACTGTGGACAACATCCTGGTGCGGCTGGCGGACCCTGTCTTCATCGGCTTCTGTGTGTTGC AGGGCGCAGACTGTGGCGCCAAGGTGGTGGAAAAGGCATACCCCGAGGAGCCCGTGGGCGTGTGCCAGGTGG ACGGTGTCCCCCAGGTGGTGGAGTACAGCGAGATCAGTCCTGAGACCGCACAGCTACGTGCCTCCGACGGGAGCC TGCTGTACAATGCAGGCAACATCTGCAACCACTTCTTCACCCGAGGCTTCCTTAAGGCGGTCACCAGGGAGTTTG AGCCTTTGCTGAAGCCACACGTGGCTGTGAAGAAGGTCCCGTATGTGGATGAGGAGGGGAATCTGGTAAAGCCGC TAAAACCGAACGGGATAAAGATGGAGAAGTTTGTGTTTGATGTTTCCGGTTTGCTAAGAACTTTGCTGCCTTGG GGCTCCCAGAGCTGCCCAGCTTGCCCCCAAATGGAGACCCTCCGGCCATCTGTGAGATATCGCCCTTGGTGTCTT ACTCTGGAGAGGGTTTAGAAGTGTACCTGCAAGGCCGGGAGTTCCAGTCCCCGCTCATCCTGGATGAAGACCAGG  ${\tt CCAGGGAGCCGCAGCTGCAGGAGTCC}{\tt TGACCCGCCCAGACTGTCCCCAGACTCCCCCGAGACCTGCCAGCCCCGG}$ CATCCTGGAAGTCCCGACTCCCCCAGACCTGCCAGCCCCGGCGTCCTGGAGCTGGGGGGCTACAGCCCAGCCTGA GCTCTGGGTGGGAAAGCAGCCTGCCCCATGCTTCCAGCCTGCAGAACACAGAATGAAACATGCTGGTAGACTCCA  $\tt CGAGGGCAGGGCCTCTCCTGTCGCCTCTGGACACAAGTGGCGACAGCCTGCTGGGGGGCTCTGTGGCTCCATTCCT$ GGCTGTGGGGTCTAGTCAAGAGGCAGAGGGACTTGGGACCTGGGAGAATGGGGCTGAGAGGAGGCTTCGGGTTGG GGCCCAAGGGAGGTGTGGTGTCATCTGGGGAGAACAGGAGGGCATGTCCCTTTGGGAGCCCGCCTTGTGGATCCA CCACACCCCACCGAGCACTAGAAGCTGCATAAGCTACACAGGATGTGCTTCTGCAGCCTACAGATGCAGAACCAG CTGGGGCATCCCAGCCCACACCCTGGATGCCCAGCAAGGCCACAGAAAGAGCCTGATGTCCATGATCCAGGTG GCTCTGAGAAGCTTGGCCTGGACACCTGAGCCTGCGCCGGTACTCCTGCCTTCTCCCCATCTATCCCCAAGGCC TCTGCCTCTCAGCCTCTTCCATGGTCGGTTTAGGCTGCTGAGTTTTCTGTGCTTCCCCAAGAACCAGTGGGATCA ATGCCGGCGGCCTCTGTGATGGTTGCTGACTAATCCGGGATTTCATGAGTCAGAGGCACCACCCCTCACCCCAGC TGCCTGCTGCTTCTGACGGATCTTGGTGCTCAGGCTGCCTCGCTCTCCGAGTGAGGACGCAGCCTCCATATTTGG TGCACTCAGGCATGGCTGGGACAAGCCAGCTGCCCCAGGGTTCTTCCCCTGGTGATTCTCGCCTGCTTTCTCATC TCAGGGGAGGCAGTGGCACCTCCCTCTCCTGCTGACATGAAGAGAGCTATGATATGCCACTGCTGCCAACTCAT CCTCTGCCCCCACCTCGAAACCCACAGTCCCCAGTGGAGGGCCACTACTCATCCCCATTGGTTTCCCAGGGGAGG GGTGTTGTCTGGAAGGGCAGGTTCAGATGCAGCCTTCCAGATTTAGAGGCACTGGGAGGACAGTGGCTGAGTGGA GGCGCCCAGACCTGGGCAGGCAGGCTCAGGCCCACACCTTGTGATTTTTGAAACCAAAGCCCAGAAGATGAT GTTTACTTCTCTCCCTGGCTCTGCCCTTCTTACTGCAAACCATGCTGTGCCTTAGGGCCCTTCTCATAGCTGT TTTGTTTGTTTTAGACGGAGTTTCACTCTTGTTGCCCAGGCTGGAGTGAAGTGGCGTGACCTTGGCTCACTGCAA  $\tt CCTCCAGGCCAGCCTCAGCTAGCTAGCTGGGACTACAGGCACCCACTACCACGCCTGGCTAATTCTTTGTA$ GTGGAATATTTCCAATAAACACAAGGTGCCGTAATTGACTGCT

 $\label{thm:confit} \begin{tabular} MERRGVEFVHVYCVDNILVRLADPVFIGFCVLQGADCGAKVVEKAYPEEPVGVVCQVDGVPQVVEYSEISPETAQ\\ LRASDGSLLYNAGNICNHFFTRGFLKAVTREFEPLLKPHVAVKKVPYVDEEGNLVKPLKPNGIKMEKFVFDVFRF\\ AKNFAALEVLREEEFSPLKNAEPADRDSPRTARQALLTQHYRWALRAGARFLDAHGAWLPELPSLPPNGDPPAIC\\ EISPLVSYSGEGLEVYLQGREFQSPLILDEDQAREPQLQES\\ \end{tabular}$ 

 ${\tt MATHHTLWMGLALLGVLGDLQAAPEAQVSVQPNFQQDKFLGRWFSAGLASNSSWLREKKAALSMCKSVVAPATDG}$$ GLNLTSTFLRKNQCETRTMLLQPAGSLGSYSYRSPHWGSTYSVSVVETDYDQYALLYSQGSKGPGEDFRMATLYS RTQTPRAELKEKFTAFCKAQGFTEDTIVFLPQTDKCMTEQ$ 

GATGGACGAGGGCGCCACGCCCTGCTCCCCGACAGCCTGGTCTACCAGATCTTCCTGAGCCTGGGCCCGGCCGA CTACCGCTACTACCAGGTGGCCCGCGACGTGCCCCGACACCCAGCGGCCATGTCCTGGTACGAGGAGTTCCAGCG GCTGTATGACACGGTGCCCTGCGTGGAGGTGCAGACGCTGCGGGAACACACAGACCAGGTCCTGCACCTCAGCTT CTCCCATTCCGGGTACCAGTTCGCGTCCTGCTCCAAGGACTGCACTGTGAAGATCTGGAGCAACGACCTGACCAT CTCGCTGCTGCACAGCGCGGACATGCGGCCCTACAACTGGAGCTACACCCAGTTCTCCCAGTTCAACAAGGACGA CTCGCTACTGCTGGCCTCGGGGGTGTTCCTGGGGCCGCACACTCCTCATCCGGCGAGATTGCTGTCATCAGCCT AGACTCCTTCGCGCTGCTGCCCGCGTGCGGAACAAGCCCTATGACGTGTTTGGCTGTTGGCTCACCGAGACCAG CCTCATCTCGGGGAACCTGCACCGCATCGGAGATATCACCTCCTGCTCGGTGCTGTGGCTCAACAATGCCTTCCA GGATGTGGAGTCAGAGAACGTCAACGTGGTGAAGCGGCTGTTCAAGATCCAGAACCTCAATGCCAGCACCGTCCG CACGGTGATGGTGGCCGACTGCAGCCGCTTCGACAGCCCTGACCTGCTGGAAGCCGGTGACCCGGCCACGTC GCCGCCATGCTGCCCGCCTCGGTCCTAGGAGCTTGGGGGAGGCCGGGCAGGGGTCCTGAGGGGCAGACAGCAAGC AAGTCCACAGGCAAAGCTGGGATCGTTCACTCGCCCCTGGGGTCACAAGCCCAGACCTGGGGCCTGTGGGATGAG AGCAGGCAGTGCCCACGGACCTCTGTGGTGCTCACAGCCCCAGAGACACCACTGAGGTAGGAAGCTGCCCTGGAG AGATGACCACGGCAGGGCCCGTGCTGGGTGAGGGCCGGGGCTCCGATGCCTTCTTCGACGCGCTGGACCACGTCA TAGACATACACGGACACATCATCGGCCATGGGCCTGTCGCCCGACAACAGGTGGGCCTCTTGCCAGTGTCCCAGGC GGGGTGCCCGCAGGCGGCCCACACCTAGCACAGTGCCCCTCGCCCAGGTACCTGTACGTGAACAGCCGCGCCTGG CCCAACGGTGCGGTGGCCGACCCCATGCAGCCGCCACCAATCGCGGAGGAGATTGACCTGCTGGTGTTCGAC CTCAAGACCATGCGGGAGGTGAGGCGGGCTCTGCGTGCGCACCGCGCCTACACGCCCAACGACGAGTGCTTCTTC TACAACATCTGTCTGGCCAGGCTGCGGCACGAGGATGTGGTCAACTCAGTGGTCTTCAGTCCCCAGGAGCAGGAG CTGCTGCTCACGGCCAGCGACGCCACCATCAAAGCCTGGCGCTCCCCACGCACCATGCGCGTCCTCCAGGCA CCACCGGGACCCCTTGAGGACATCGCCAGGCTCTGTGGCTTTTTCCCGAGCGGGAGAGGTGGAGATGCTTATAGC TTGGCACGGGGTGGCCAGTGCAGATGGAGCCCAAGGCCCCCTCGGCCTCCTGGGCAACTTGGGGTACACAGGATA CTGGGGGTGCCGCTCCTCACTCAACCCCAGGCTAGGGGTACACCTGACCCAGCTGGCCTCGGCCCGGGGCACCTT CGGCTGGTCCTGTGGGGCCCTGGACGGTGGCCCAGTGGTGGCAGGGGCTGCTCCTGGCTGTGGTTGTGCGCCCGG GGCTTGGGAGCGGCCGGTCACGCTGCTGTGGGCCCGAGTGTGTTGCATGTCCACGCACCACCCGTTCAGGGCCCT GAATAAACAGTTGGCAACAGC

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GGCTACCAGGGCATGGTGGACGGAGGCTCAAACATCGCAGAGGCCGACTGGGAGAGTGTCTCCAGCATCCTGCAA GTGGGCGGGACGATCATTGGCAGTGCCGGTGCCAGGCCTTCCGCACGCGGGAAGGCCGCCTGAAGGCTGCTTGC AACCTGCTGCAGCGAGGCATCACCAACCTGTGTGTGATCGGCGGGGACGGGAGCCTCACCGGGGCCAACCTCTTC CGGAAGGAGTGGAGTGGGCTGCTGGAGGAGCTGGCCAGGAACGGCCAGATCGATAAGGAGGCCGTGCAGAAGTAC GCCTACCTCAACGTGGTGGGCATGGTGGGCTCCATCGACAATGATTTCTGCGGCACCGACATGACCATCGGCACG GACTCCGCCCTGCACAGGATCATCGAGGTCGTCGACGCCATCATGACCACGGCCCAGAGCCACCAGAGGACCTTC GTTCTGGAGGTGATGGGACGACACTGTGGGTACCTGGCCCTGGTGAGTGCCTTGGCCTGCGGTGCGGACTGGGTG TTCCTTCCAGAATCTCCACCAGAGGAAGGCTGGGAGGAGCAGATGTGTCCAAACTCTCGGAGAACCGTGCCCGG AAAAAAGGCTGAATATTATTGTGGCTGAAGGAGCAATTGATACCCAAAATAAACCCATCACCTCTGAGAAA ATCAAAGAGCTTGTCGTCACGCAGCTGGGCTATGACACGCGTGTGACCATCCTCGGGCACGTGCAGAGAGGGGG ACCCCTTCGGCATTCGACAGGATCTTGGCCAGCCGCATGGGAGTGGAGGCAGTCATCGCCTTGCTAGAGGCCACC GCGGGCAACCTGAACACCTACAAGCGACTTGCCATCAAGCTGCCGGATGATCAGATCCCAAAGACCAATTGCAAC GTAGCTGTCATCAACGTGGGGGCACCCGCGGCTGGGATGAACGCAGCCGTACGCTCAGCTGTGCGCGTGGGCATT GCCGACGGCCACAGGATGCTCGCCATCTATGATGGCTTTGACGGCTTCGCCAAGGGCCAGATCAAAGAAATCGGC TGGACAGATGTCGGGGGCTGGACCGGCCAAGGAGGCTCCATTCTTGGGACAAAACGCGTTCTCCCGGGGAAGTAC TTGGAAGAGATCGCCACACAGATGCGCACGCACAGCATCAACGCGCTGCTGATCATCGGTGGATTCGAGGCCTAC CTGGGACTCCTGGAGCTGTCAGCCGCCCGGGAGAAGCACGAGGAGTTCTGTGTCCCCATGGTCATGGTTCCCGCT ACTGTGTCCAACAATGTGCCGGGTTCCGATTTCAGCATCGGGGCAGACACCGCCCTGAACACTATCACCGACACC TGCGACCGCATCAAGCAGTCCGCCAGCGGAACCAAGCGGCGCGTGTTCATCATCGAGACCATGGGCGGCTACTGT GGCTACCTGGCCAACATGGGGGGGCTCGCGGCCGGAGCTGATGCCGCATACATTTTCGAAGAGCCCTTCGACATC AGGGATCTGCAGTCCAACGTGGAGCACCTGACGGAGAAAATGAAGACCACCATCCAGAGAGGCCTTGTGCTCAGA AATGAGAGCTGCAGTGAAAACTACACCACCGACTTCATTTACCAGCTGTATTCAGAAGAGGGCAAAGGCGTGTTT GACTGCAGGAAGAACGTGCTGGGTCACATGCAGCAGGGTGGGGCACCCTCTCCATTTGATAGAAACTTTGGAACC AAAATCTCTGCCAGAGCTATGGAGTGGATCACTGCAAAACTCAAGGAGGCCCGGGGCAGAGGAAAAAAATTTACC ACCGATGATTCCATTTGTGTGCTGGGAATAAGCAAAAGAAACGTTATTTTCAACCTGTGGCAGAGCTGAAGAAG CAAACGGATTTTGAGCACAGGATTCCCAAAGAACAGTGGTGGCTCAAGCTACGGCCCCTCATGAAAATCCTGGCC AAGTACAAGGCCAGCTATGACGTGTCGGACTCAGGCCAGCTGGAACATGTGCAGCCCTGGAGTGTCTGACCCAGT CCCGCCTGCATGTGCCTGCAGCCACCGTGGACTGTCTGTTTTTGTAACACTTAAGTTATTTTATCAGCACTTTAT GAGTGTGTCTCATGCTTTCAGATGTGCATATGAGCAGAATTAA

GGGTGGGGCGTGTTGACCCCCTTAAAGGCGCCAGAGCCCGCGGTCACGGCTCAGGTTCCCGGTGCTTCGCGCGTC TGCCGTTGTCACAGGCCAGGGAGGTGGCACCACCAGGCGAAGCTTGGCGAGATTGTGTCGTCAAGCGCGTACGGG CGCCAATTGGCCGGGCGATGTGGCGTGGACTGGCGCTGGCGCGGATTGGCTGCGCGGCCCGGGGGCCGGGGCC AGTGGGCGGTGCGCCGCAGACTGTGCTCAAAGCGGGCGCCATCCGGGACCGGCGGTTGTCTGTGGCCGGAGGC TGATCAGTGTTCTAGAACAGATCAGACATTTTGTAATGATGCCTGAAAATAAACACTAACCACCTCGACAAGCAAC AGGTTCAACTCCTGGCAGAGATGTGTATCCTTATTGATGAAAATGACAATAAAATTGGAGCTGAGACCAAGAAGA ATTGTCACCTGAACGAGAACATTGAGAAAGGATTATTGCATCGAGCTTTTAGTGTCTTCTTATTCAACACCGAAA ATAAGCTTCTGCTACAGCAAAGATCAGATGCTAAGATTACCTTTCCAGGTTGTTTTACGAATACGTGTTGTAGTC ATCCATTAAGCAATCCAGCCGAGCTTGAGGAAAGTGACGCCCTTGGAGTGAGGCGAGCACAGAGACGGCTGA CTCAGTCTGATGGTATCTGGGGTGAACATGAAATTGATTACATTTTGTTGGTGAGGAAGAATGTAACTTTGAATC CAGATCCCAATGAGATTAAAAGCTATTGTTATGTGTCAAAGGAAGAACTAAAAGAACTTCTGAAAAAAGCAGCCA GTGGTGAAATTAAGATAACGCCATGGTTTAAAATTATTGCAGCGACTTTTCTCTTTAAATGGTGGGATAACTTAA ATCATTTGAATCAGTTTGTTGACCATGAGAAAATATACAGAATG<u>TGA</u>ATATGTAGGTAAATGATTACAGAAAAAT TTATCTGCTTAACAAACTTAGAATGACTTTTTCCTTTTAAATTTAGTTCTATCATTAATTTATCATTAAATTTAG TAATTTTGTATCACACCCTGGATATGTGTTCTGTTTCTAAGCGACATTTGTGAGAGATTATTGTAAAATGAGA TTTTTAGTAGGCTGTGATAAACATTTCCGGAGCACTTGCAGAGGACTTGCTATTTTGCCAGGTGCTTTATGTATCA CTTTCATATTAGCAGATTAAACTAGCAGAGCAGGTTCAAGGGAAATTAAATGATATGGACCCTAATTTGTATCAT TCTGAGTTGATTGTGTGGTTTATTCATTCTGGAAACATGTTGATACTTACAGTCAGCCACTGCTTTTGATAAGTG ATATTGATTAGGTTGAATCTTCTTGTAAATAGTATTTACCAGTTAGCAAAGTCTGTGTTTTCAGAATTACAGTGA GCACAGAGGTGTTCATAAAATGGGAATTGAGTCCCACTCGGTAAGAGTTGCTTAAACTTGACACTGTTGACATTT ACCCACAGTTATGCCGGATGTTGCCAGATGCCCCTAGGGGACAGAGTCAACCCCCAACTGAGGACCACTGTCCTA CAGAGTCAGGAAATATTGTAGGGAGAAAAAAATAACAACAACAACGCCTGTGTTAATGTTAAATAGATGAGATT ATGGAATGTGTATATTAATGTTAAAAATTGTACCTTGATCAATGTACTTTTTATAAACTTGCCATAGATATCTCA GCAAAGTTAAATGTTTGAATTCAATAGAATGACTCATTTATGGTTAACTTTGGGCCAATTTATAATTTCAGAC 

MMPEINTNHLDKQQVQLLAEMCILIDENDNKIGAETKKNCHLNENIEKGLLHRAFSVFLFNTENKLLLQQRSDAK ITFPGCFTNTCCSHPLSNPAELEESDALGVRRAAQRRLKAELGIPLEEVPPEEINYLTRIHYKAQSDGIWGEHEI DYILLVRKNVTLNPDPNEIKSYCYVSKEELKELLKKAASGEIKITPWFKIIAATFLFKWWDNLNHLNQFVDHEKI YRM

GGGGCTTGGTTGAACGGACTCACCAGGAAACGTGACTTTCGTGTCCGACCTCTGCTGTATCAGGATTCGATTCTT GGTGTTAAACAAGACAACGCTGAAGGCTCGGTGCAGCAGCCCTGCAAAGCTTTGTGTCTTAGGTTTCAGCGTGCT  ${\tt GACGTTCTCTGGGCCCTGAAGTCACTGCTGGCTGGTGTGTGCTGGCCACTTGGTCGTGCTGGCCTGTCTCCCAC}$  $\tt CGGGTGGATGCCCAGCGAGCTCTGGATGCTGTTTTTCCAGCGCTCTTGGGAGGTGGGCTGTGCCACTGCCTGG$  $\tt CCCACCTGGCCCACCTGGCCCACCTTACCTGAAGGGAAGCATGAACAGCCTTTGACGTGGGAGTGGCGACTGCT$ GAGAGGGAACTGTCTGTACACAAGCAATGTAGCCTTATGGGACCTGAGTGGAGCCCCAACCCACGCAGGGCGTGT  $\tt CTTCATGGCTTTTCCTGGCCAATCTGATACCAAGATGCAGTGGCCAGAAGTACCTGCACTTCCACTCCTGTCAAG$ TCTCTGCATGGCTATGGTGAGGAAGAGCTCTGCACTGGGCAAGGAAGTTGGCCGTCGAGTGAAGGAAATGGTGAT GCTGGTGGCCCCTTTCCGGCAGTCAAGTTCCCTATCAAGGACATTCAGTTCTCGGAAAGTGGTGAAGGCACATGC TTCCCTGCATGGTGCCCGCCTCTCCCACTCTCTAGAAATATTAGAGGCTAGGCTGCTGCTGTATGTCAGGGCTA GTCCCTCTTCTATGAATCCAGAATAACTCTGAAGAAGCCGAGTAACAGGCATGAAGTGAAGAGAAATCGCTGTAA CAGGAAGACAGCAAAGCAGATGCTAATGACCACACTATTTAACGAACTGGAACCAACGAGAAAATACGGTATTAC TGAAGACTGCACTTCCTTGAACAGAGTGCTCTTCTCAGCAAATCGGAAATGCCTACACAAATCGCTTTACAAGAA  ${\tt AGACTGTTTCAAAGCAGCACCTTTCTCAATGTTCTCGTTCAGGTGACAATTCTTCTTGGTCTCAGCTCCAATTTT}$ ATTGTCATTTTCATCAATAAGGATACACATCTCTGCCAGGAGTTGAACCTGTTGCTTGTCGAGGTGGTTAGTGTT TATTTCAGGCATCATTACAAAATGTCTGATCTGTTCTAGAACACTAATATTAAAGGAAAAGAGAAAG

CCCGCGTGCATACGGCTGCCGGC<u>ATG</u>GCACATTACAACTTCAAGAAAATTACGGTGGTGCCGTCCGCCAAGGACT TCATAGACCTCACGTTGTCGAAGACTCAACGAAAGACTCCAACCGTTATTCATAAACATTACCAAATACATCGCA TTAGACATTTTTACATGAGAAAAGTCAAATTTACTCAACAGAATTACCATGATAGACTTTCACAAATTCTAACAG ATTTCCCCAAATTGGATGATATTCATCCGTTCTATGCTGATTTGATGAATATTCTCTACGACAAGGATCATTACA AGTTGGCTCTGGGGCAAATAAATATTGCCAAAAATTTAGTGGACAATGTTGCTAAAGATTATGTGCGACTGATGA AGTATGGCGACTCTCTCTACCGCTGCAAACAGCTGAAGCGTGCGGCCCTGGGACGGATGTGCACAGTGATCAAGA GGCAGAAGCAGAGTTTGGAGTATTTGGAGCAAGTGCGTCAGCATTTATCCCGTTTGCCAACCATTGATCCGAATA CCAGGACCCTGCTTTTGTGTGGGTACCCAAATGTTGGGAAGTCCAGCTTCATCAACAAGGTGACGAGAGCAGACG AGGTTGTAGACACTCCTGGGATCCTGGACCACCCTCTGGAGGATAGGAACACCATCGAGATGCAGGCCATCACTG AGCTAGAACTCTTCCAGAACATCAGACCTCTCTTCATCAACAAGCCTCTCATAGTTGTAGCCAACAAATGTGATG TGAAGAGAATAGCTGAACTTTCTGAAGATGATCAGAAAATATTTACAGATTTGCAGTCTGAAGGATTCCCTGTAA TAGAGACCAGCACCCTGACTGAGGAAGGTGTTATTAAAGTTAAAACAGAGGCTTGCGATAGGCTTTTGGCTCATC GAGTGGAAACCAAAATGAAGGGAAATAAAGTGAATGAGGTGCTGAATAGACTGCACCTGGCTATCCCAACCAGGA GGGACGATAAGGAGAGGCCCCCTTTCATCCCTGAAGGAGTGGTGGCTCGCAGGAAGAGGATGGAAACTGAGGAGT CCAGGAAGAAGAGGGAACGAGATCTTGAGCTGGAAATGGGAGATGATTATATTTTGGATCTTCAGAAGTACTGGG ATTTAATGAATTTGTCTGAAAAACATGATAAGATACCAGAAATCTGGGAAGGCCATAATATAGCTGATTATATTG ATCCAGCCATCATGAAGAAATTGGAAGAATTAGAAAAAGAAGAAGAGCTGAGAACAGCTGCTGGAGAGTATGACA GTGTATCTGAGAGTGAAGACGAAGAGATGCTGGAAATCCGACAGCTGGCAAAGCAAATTCGAGAGAAAAAAGAAGT TGAAAATTCTGGAGTCCAAAGAAAGAATACACAGGGACCCAGGATGCCGCGAACTGCTAAGAAGGTTCAGAGGA CAGTTTTGGAGAAGGAGATGCGTAGTCTTGGTGTTGACATGGACGATAAAGACGATGCCCATTACGCAGTCCAGG CAAGAAGATCCCGGAGCATCACTAGGAAAAGAAAGCGGGAAGACTCTGCTCCCCCGTCCTCTGTGGCCCGGAGTG GGAGTTGCTCTCGAACTCCACGTGACGTTTCTGGTCTTAGGGATGTCAAGATGGTGAAGAAAGCCAAGACTATGA TGAAGAATGCTCAGAAGAAGATGAATCGGTTGGGGAAGAAAGGGGAGGCGGATAGACACGTGTTTGATATGAAGC  ${\tt CCAAGCACTTGCTGTCTGGGAAGAGGAAAGCTGGTAAAAAGGACAGGAGA} \underline{{\tt TAG}} {\tt TATCCGTTTGGTTGGCGTGGCT}$ TCGCTAGAGTGTTGCTGTTTATTTCCTGGTTTGGCACAGTATGGTTTCATGAAATTGGAGCTCTGTATAAACTGA AAAAGACAAAATAAGTAAAGCACTTGTTGCTTGCTGAAAACTATGGTTAACCCTATATAGGTGTGGGAAATTTT TGTCACTGCATAATATTACAAATATTTTGAGTAGACAGTGTTTCCACATTTAATGGAGTATCAGTTGCTTCAGAT TTTCAGAACTGGGAAGATTTACTGGTTTAACTAGGTTGTTTTTGATGGAGAAAAACCTTATTTTCTTTTGTAAGA GCTGGGAGCAAACACGTTTATGAGTGTGTCGGAATCCCGTGCTTAAAATACGCTCTTAAATTATTTTCTAGTCTT ATTTTACAATGTCTCATTGTAGTCTGTCTTCAACTATTTTATCCAAAATAAACCTCCAGAAGAAAGT

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TGCTAACCAGGCCAGTGACAGAAATGGATTCGAAATACCAGTGTGTGAAGCTGAATGATGGTCACTTCATGCCTG TCCTGGGATTTGGCACCTATGCGCCTGCAGAGGTTCCTAAAAGTAAAGCTCTAGAGGCCGTCAAATTGGCAATAG AAGCCGGGTTCCACCATATTGATTCTGCACATGTTTACAATAATGAGGAGCAGGTTGGACTGGCCATCCGAAGCA AGATTGCAGATGGCAGTGTGAAGAGAGAGACATATTCTACACTTCAAAGCTTTGGAGCAATTCCCATCGACCAG AGTTGGTCCGACCAGCCTTGGAAAGGTCACTGAAAAATCTTCAATTGGACTATGTTGACCTCTATCTTATTCATT TTCCAGTGTCTGTAAAGCCAGGTGAGGAAGTGATCCCAAAAGATGAAAATGGAAAAATACTATTTGACACAGTGG ATCTCTGTGCCACATGGGAGGCCATGGAGAAGTGTAAAGATGCAGGATTGGCCAAGTCCATCGGGGTGTCCAACT TCAACCACAGGCTGCTGGAGATGATCCTCAACAAGCCAGGGCTCAAGTACAAGCCTGTCTGCAACCAGGTGGAAT GTCATCCTTACTTCAACCAGAGAAAACTGCTGGATTTCTGCAAGTCAAAAGACATTGTTCTGGTTGCCTATAGTG CTCTGGGATCCCATCGAGAAGAACCATGGGTGGACCCGAACTCCCCGGTGCTCTTGGAGGACCCAGTCCTTTGTG CCTTGGCAAAAAAGCACAAGCGAACCCCAGCCCTGATTGCCCTGCGCTACCAGCTGCAGCGTGGGGTTGTGGTCC TGGCCAAGAGCTACAATGAGCAGCGCATCAGACAGAACGTGCAGGTGTTTGAATTCCAGTTGACTTCAGAGGAGA TGAAAGCCATAGATGGCCTAAACAGAAATGTGCGATATTTGACCCTTGATATTTTTGCTGGCCCCCCTAATTATC CATTTTCTGATGAATATTAACATGGAGGGCATTGCATGAGGTCTGCCAGAAGGCCCTGCGTGTGGATGGTGACAC  ${\tt AGAGGATGGCTCTATGCTGGTGACTGGACACATCGCCTCTGGTTAAATCTCTCCTGCTTGGTGATTTCAGCAAGC}$ TACAGCAAAGCCCATTGGCCAGAAAGGAAAAGACAATAATTTTGTTTTTTCATTTTGAAAAAAATTAAATGCTCTCT CCTAAAGATTCTTCACCT

MDSKYQCVKLNDGHFMPVLGFGTYAPAEVPKSKALEAVKLAIEAGFHHIDSAHVYNNEEQVGLAIRSKIADGSVK REDIFYTSKLWSNSHRPELVRPALERSLKNLQLDYVDLYLIHFPVSVKPGEEVIPKDENGKILFDTVDLCATWEA MEKCKDAGLAKSIGVSNFNHRLLEMILNKPGLKYKPVCNQVECHPYFNQRKLLDFCKSKDIVLVAYSALGSHREE PWVDPNSPVLLEDPVLCALAKKHKRTPALIALRYQLQRGVVVLAKSYNEQRIRQNVQVFEFQLTSEEMKAIDGLN RNVRYLTLDIFAGPPNYPFSDEY

CTCTGAGGAGAAGCAGCAAACATTTGCTAGTCAGACAAGTGACAGGGAAATGCATTCCAAACAGCAGTGTGTA AAGCTAAATGATGGCCACTTCATGCCTGTATTGGGATTTGGCACCTATGCACCTCCAGAGGTTCCGAGAAGTAAA GCTTTGGAGGTCACAAAATTAGCAATAGAAGCTGGGTTCCGCCATATAGATTCTGCTCATTTATACAATAATGAG GAGCAGGTTGGACTGGCCATCCGAAGCAAGATTGCAGATGGCAGTGTGAAGAGAAGACATATTCTACACTTCA AAGCTTTGGTCCACTTTTCATCGACCAGGTTGGTCCGACCAGCCTTGGAAAAACTCACTGAAAAAAGCTCAATTG GACTATGTTGACCTCTATCTTATTCATTCTCCAATGTCTCTAAAGCCAGGTGAGGAACTTTCACCAACAGATGAA AATGGAAAAGTAATATTTGACATAGTGGATCTCTGTACCACCTGGGAGGCCATGGAGAAGTGTAAGGATGCAGGA TACAAGCCTGTCTGCAACCAGGTAGAATGTCATCCGTATTTCAACCGGAGTAAATTGCTAGATTTCTGCAAGTCG AAAGATATTGTTCTGGTTGCCTATAGTGCTCTGGGATCTCAACGAGACAAACGATGGGTGGACCCGAACTCCCCG GTGCTCTTGGAGGACCCAGTCCTTTGTGCCTTGGCAAAAAAGCACAGCGAACCCCAGCCCTGATTGCCCTGCGC TTTGAGTTCCAGTTGACTGCAGAGGACATGAAAGCCATAGATGGCCTAGACAGAAATCTCCACTATTTTAACAGT GATAGTTTTGCTAGCCACCCTAATTATCCATATTCAGATGAATATTAACATGGAGAGCTTTGCCTGATGTCTACC AGAAGCCCTGTGTGTGGATGGTGACGCAGAGGACGTCTCTATGCCGGTGACTGGACATATCACCTCTACTTAAAT CCGTCCTGTTTAGCGACTTCAGTCAACTACAGCTGAGTCCATAĞGCCAGAAAGACAATAAATTTTTATCATTTTG AAAT

MDSKQQCVKLNDGHFMPVLGFGTYAPPEVPRSKALEVTKLAIEAGFRHIDSAHLYNNEEQVGLAIRSKIADGSVK REDIFYTSKLWSTFHRPELVRPALENSLKKAQLDYVDLYLIHSPMSLKPGEELSPTDENGKVIFDIVDLCTTWEA MEKCKDAGLAKSIGVSNFNRRQLEMILNKPGLKYKPVCNQVECHPYFNRSKLLDFCKSKDIVLVAYSALGSQRDK RWVDPNSPVLLEDPVLCALAKKHKRTPALIALRYQLQRGVVVLAKSYNEQRIRQNVQVFEFQLTAEDMKAIDGLD RNLHYFNSDSFASHPNYPYSDEY

MDPKYQCVELNDGHFMPVLGFGTCVPPEVIDCSGMVSPFLSIIEEIVCSSKNRVVEVTKLAIEAGFFHIDSAHLY NNEEQVECHPYLNQSKLLDFCKSKDIVLVAHTLIALCYQLQRGAVVLVKSSNEQQIRENMQVFDFELTPEDMKAI DSLNGNLRHAKLQF

 ${\tt MVLNEDSRSIWKCIHLFGWITQSGNSTAANTESTLTYQFYLLFSIKQKKPVSVLKFFLSITTCFFLLVKSFVSFLIGTLSRSSLRENVAGRVVLIHFHQVYPQNS}$ 

CAATGCTACATTAACCCATTATGTAAGACCAATAAATGCAGAGCCAGTGTTTCAAGCACAGGAAATACCAGCAGG  ${\tt CAGA}{\tt ATG}{\tt GCCAGTTTGCTTAAGAATGGTGAGCCTGAAGCTGAGTTACATAAAGAAACCACAGGTCCAGGCACTGC}$ TGGCCCTCAGTCCAACACCACATCTTCTCTAAAAGGTGAACGCAAAGCCATCCACACGCTGCAAGATGTGTCAAC ATGTGAAACAAAGGAGCTATTGAATGTCGGGGTTTCCTCCCTTTGTGCTGGTCCCTACCAAAATACAGCAGACAC CAAGGAAAACCTCAGTAAAGAGCCTTTGGCCTCCTTTGTTTCAGAATCCTTTGATACTTCTGTTTGTGGAATAGC CACAGAGCACGTAGAAATTGAGAACAGTGGGGAGGGGCTCAGGGCTGAGGCTGGTTCTGAAACCCTAGGCAGAGA TGGAGAGGTCGGTGTGAATTCCGACATGCACTATGAACTCTCTGGAGATTCTGATCTAGACCTGCTTGGTGATTG TAGAAATCCCAGACTGGATTTGGAGGATTCTTATACTTTAAGAGGTAGTTACACCAGGAAAAAAGATGTTCCCAC AGATGGCTATGAGTCGTCGAACTTCCACAACAACAACAACAAGAGGACTGGGGCTGCTCTAGCTGGGTTCCAGG CCAAATCCGAGATCTCCACGGGATCCTCAGGACTTACGCCAACTTCTCTATAACAAAAGAACTCAAAGATACCAT GAGAACTTCACACGGCCTGAGGAGGCACCCGAGTTTCAGTGCAAACTGTGGCCTGCCCAGCTCCTGGACAAGCAC TTGGCAGGTGGCAGACGACCTCACCCAGAACACTTTAGACCTGGAGTATCTGCGTTTTGCACATAAACTAAAACA GACCATAAAGAATGGGGATTCTCAGCATTCTGCCTCCTCTGCCAATGTCTTTCCAAAGGAGTCACCAACCCAGAT  $\tt CTCCATTGGTGCTTTCCCTTCGACAAAAATCTCTGAGGCCCCATTTCTGCATCCTGCACCTAGGAGCAGAAGCCC$ GGACAGCTCTTCCTCTTGGAGAGAGAGATGTAGTCATAATAGAGATCTTAGAAATTCTCAAAGAAATCACACTGT TTCATTCCACCTCAACAAACTGAAATACAACAGTACTGTGAAGGAATCTCGGAATGATATTTCACTTATTCTCAA TGAGTATGCTGAATTCAACAAGGTGATGAAGAATAGCAACCAATTCATTTTCCAAGACAAAGAGCTAAATGATGT TTCTGGAGAAGCCACTGCTCAAGAGATGTATCTGCCTTTCCCAGGACGGTCAGCCTCCTATGAAGACATAATCAT CCTTGTCGAAACAGAAGACAAATCATTCTTTGTAAGAACAAAGAACCTTCTGAGGAAAGGAGGCCATACAGAAAT TGAACCTCAGCACTTCTGTCAAGCTTTCCACAGAGAGAATGATACACTAATCATCATCATCAGAAATGAAGATAT ATCATCACATTTGCATCAGATTCCTTCTTTGCTGAAGCTGAAGCATTTCCCCAGTGTCATCTTTGCTGGAGTAGA CAGCCCTGGAGATGTTCTTGATCACACCTACCAAGAACTGTTTCGTGCAGGAGGCTTTGTGATATCAGATGACAA GATACTAGAAGCTGTAACATTAGTTCAACTGAAGGAAATTATCAAAATCCTGGAAAAACTAAATGGAAATGGAAG ATGGAAGTGGTTGCTTCACTACAGGGAAAATAAAAAGCTAAAAGAAGATGAAAGAGTGGATTCAACTGCACATAA GAAGAACATAATGTTGAAGTCATTTCAGAGTGCAAATATCATTGAATTGCTTCATTATCACCAGTGTGACTCTCG ATCATCAACAAAAGCAGAAATTCTGAAATGTTTGCTAAACCTGCAAATTCAGCATATTGATGCCAGGTTTGCTGT CCTCCTAACAGACAAGCCTACTATCCCCAGAGAAGTCTTTGAAAATAGTGGAATCCTTGTTACAGATGTAAATAA  $\tt CTTTATAGAAAACATAGAAAAAATAGCAGCTCCATTTAGGAGTAGCTATTGG{\color{red}{\bf TGA}} CTCAACTACAGCCTGCCTGG$ ATATGGATGATGCCAATAAAAATTAGTATTTTCCCTTTGGAAAACTTGTGAACATGTGAATACACATGTGAACA GTCTTACATTTGAAAAACCAATGTTCTACAACTTGGAAAGTTTTCATTTTTATATTTTTGCTGAAATATGTCACA GTGGCATTGCAGTTGTCTGTTAGCTTTGGGTTGCAGTGCTAGATATTGTTTTAAATTATTTTCATTTTAAACAAG ATGCCTTCTAAGCTATTGAGCTTATTAAAAATAATTTTACATGTTTACTTAGTTGGAGCAAAAATAAGTCTATTT TAACAAATAGCTTTGTTTTTGCATGCTAATGTCAGAAAGGCATACGATGCACATTATGCTCTGTTTTAAAGGTTT TTCCTAAATGGTACAAATTTATAAACTATCATTTTCACTTACGGTATTTGTAAATACTACACTACAAAAATCAG CTTTCTGAGAAAGAAATAATCATTTATTTATGATATTGAAAATTTCTACAGTAAACACTCAAAACCAAGCAAAAA CAACTAAAAATAA

MASLLKNGEPEAELHKETTGPGTAGPQSNTTSSLKGERKAIHTLQDVSTCETKELLNVGVSSLCAGPYQNTADTK ENLSKEPLASFVSESFDTSVCGIATEHVEIENSGEGLRAEAGSETLGRDGEVGVNSDMHYELSGDSDLDLLGDCR NPRLDLEDSYTLRGSYTRKKDVPTDGYESSLNFHNNNQEDWGCSSWVPGMETSLPPGHWTAAVKKEEKCVPPYVQ IRDLHGILRTYANFSITKELKDTMRTSHGLRRHPSFSANCGLPSSWTSTWQVADDLTQNTLDLEYLRFAHKLKQT IKNGDSQHSASSANVFPKESPTQISIGAFPSTKISEAPFLHPAPRSRSPLLVTVVESDPRPQGQPRRGYTASSLD SSSSWRERCSHNRDLRNSQRNHTVSFHLNKLKYNSTVKESRNDISLILNEYAEFNKVMKNSNQFIFQDKELNDVS GEATAQEMYLPFPGRSASYEDIIIDVCTNLHVKLRSVVKEACKSTFLFYLVETEDKSFFVRTKNLLRKGGHTEIE PQHFCQAFHRENDTLIIIRNEDISSHLHQIPSLLKLKHFPSVIFAGVDSPGDVLDHTYQELFRAGGFVISDDKI LEAVTLVQLKEIIKILEKLNGNGRWKWLLHYRENKKLKEDERVDSTAHKKNIMLKSFQSANIIELLHYHQCDSRS STKAEILKCLLNLQIQHIDARFAVLLTDKPTIPREVFENSGILVTDVNNFIENIEKIAAPFRSSYW

GGCGGTCGGTCTCGCCTTGTCGCCAGCTCCATTTTCCTCTTTTCTCTTCCCCTTTCCTTTCCTTCCCAAGAGCGC CCATGAATGAGGAGTACGACGTGATCGTGCTGGCCACCGGCCTGACGGAATGTATCCTGTCAGGTATAATGTCAG TGAATGGCAAGAAGTTCTTCATATGGATCGAAACCCTTACTACGGAGGAGAAAGTGCATCTATAACACCATTGG ACTTGATTCCCAAGTTCCTTATGGCTAATGGTCAGCTGGTTAAGATGCTGCTTTATACAGAGGTAACTCGCTATC AAGCCCTGGCATCTAGCCTAATGGGATTGTTTGAAAAACGTCGCTTCAGGAAATTCCTAGTGTATGTTGCCAACT TCGATGAAAAAGATCCAAGAACTTTTGAAGGCATTGATCCTAAGAAGACCACAATGCGAGATGTGTATAAGAAAT TTGATTTGGGTCAAGACGTTATAGATTTTACTGGTCATGCTCTTGCACTTTACAGAACTGATGATTACTTAGATC AACCGTGTTATGAAACCATTAATAGAATTAAACTTTACAGTGAATCTTTGGCAAGATATGGCAAAAGCCCATACC TTTATCCACTCTATGGCCTTGGAGAACTGCCCCAAGGATTTGCAAGGCTAAGTGCTATTTATGGAGGTACCTATA TGCTGAATAAACCCATTGAAGAAATCATTGTACAGAATGGAAAAGTAATTGGTGTAAAATCTGAAGGAGAAATTG CTCGCTGTAAGCAGCTCATCTGTGACCCCAGCTACGTAAAAGATCGGGTAGAAAAAGTGGGCCCAGGTGATCAGAG TTATTTGCATCCTCAGCCACCCCATCAAGAACACCAATGATGCCAACTCCTGCCAGATCATTATTCCACAGAACC AAGTCAATCGAAAGTCAGATATCTACGTCTGCATGATCTCCTTTGCGCACAATGTAGCAGCACAAGGGAAGTACA TTGCTATAGTTAGTACAACTGTGGAAACCAAGGAGCCTGAGAAGGAAATCAGACCAGCTTTGGAGCTCTTGGAAC CAATTGAACAGAAATTTGTTAGCATCAGTGACCTCCTGGTACCAAAAGACTTGGGAACAGAAAGCCAGATCTTTA TTTCCCGCACATATGATGCCACCACTCATTTTGAGACAACGTGTGATGACATTAAAAACATCTATAAGAGGATGA CAGGATCAGAGTTTGACTTTGAGGAAATGAAGCGCAAGAAGAATGACATCTATGGGGAAGAC<u>TAA</u>CAGCAGTACA TGTTATTATGTAATTAGGACACATTTAAAATTTGGCAAATAATGCATATAATGAAATCAATATTGTAAGGCCTGC TTTTGTAATGAAAATGGAGAGAATGAAGAGCGCTGTGCCAGTAAATACTCCCCTTCACCTTTCTAATTATTAACT TTTCTAGTGAAGTTAAACAAACATTGGGATACCGACACAGACAACTTGAGACAGTTTTTTTAATCTTTTAATCAG TGTAGCTATGTGCTGCTGCTCAAGAGCTGGATCCATACAGGTTGTGTCATCTGTCCTCTTGAGGTTCAGG AGATTCTAAATTGAATATTCCACGGTTTGGGACAGCATCCGGAAGTTTTCCCTATGACTTTATATTTTTGTATTAT GTCAAATGTTATGGCAGGGCCCAAATAGCATAGCCACAAGTTTGGTTTATGTGGGCATAAAATTCTAACCAAACC AGAGGAACCGAACATAAAGCGGGTCAAGTGTAGTGCATCTTTTGTATCTCAGGCGTGGCTTCTTCAGTGGACCAA GCTGCAATGCAGTATTGACTTGACAGAGCCTCTACTTCTGTCTCAAAATGGCTCCAAATGATTTCTGTACTGCAA AATAAAGCCAAATTCTGGAAACTA

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MNEEYDVIVLGTGLTECILSGIMSVNGKKVLHMDRNPYYGGESASITPLEDLYKRFKIPGSPPESMGRGRDWNVD LIPKFLMANGQLVKMLLYTEVTRYLDFKVTEGSFVYKGGKIYKVPSTEAEALASSLMGLFEKRRFRKFLVYVANF DEKDPRTFEGIDPKKTTMRDVYKKFDLGQDVIDFTGHALALYRTDDYLDQPCYETINRIKLYSESLARYGKSPYL YPLYGLGELPQGFARLSAIYGGTYMLNKPIEEIIVQNGKVIGVKSEGEIARCKQLICDPSYVKDRVEKVGQVIRV ICILSHPIKNTNDANSCQIIIPQNQVNRKSDIYVCMISFAHNVAAQGKYIAIVSTTVETKEPEKEIRPALELLEP IEQKFVSISDLLVPKDLGTESQIFISRTYDATTHFETTCDDIKNIYKRMTGSEFDFEEMKRKKNDIYGED

.

TCCCTGTACGATGACCTAGGAGTGGAGCCAGTGACTCAAAAACAGAAGGCTGGTCCAAAAACTTCAAACTTCTG CAGTCTCAGCTTCAGGTGAAGAAGGCAGCTCTCACTCAGGCAAAGAGCCAAAGGACGAAACAAAGTACAGTCCTC GCCCCAGTCATTGACCTGAAGCGAGGTGGCTCCTCAGATGACCGGCAAATTGTGGACACTCCACCGCATGTAGCA GCTGGGCTGAAGGATCCTGTTCCCAGTGGGTTTTCTGCAGGGGAAGTTCTGATTCCCTTAGCTGACGAATATGAC CCTATGTTTCCTAATGATTATGAGAAAGTAGTGAAGCGCCAAAGAGAGAACGACAGAGACAGCGGGAGCTGGAA GATCCAGATTCTGATGAAGATGAAGATTATGAGCGAGAGAGGAGGAAAAGAAGTATGGGCGGAGCTGCCATTGCC CCACCCACTTCTCTGGTAGAGAAAGACAAAGAGTTACCCCGAGATTTTCCTTATGAAGAGGACTCAAGACCTCGA AGCAACTCCTTCCTCGCTAACATGGGGGGCACGGTGGCGCACAAGATCATGCAGAAGTACGGCTTCCGGGAGGGC CAGGGTCTGGGGAAGCATGAGCAGGGCCTGAGCACTGCCTTGTCAGTGGAGAAGACCAGCAAGCGTGGCGGCAAG TGTCCTACTAAAGTGGTCTTACTAAGGAACATGGTTGGTGCGGGAGAGGTGGATGAAGACTTGGAAGTTGAAACC AAGGAAGAATGTGAAAAATATGGCAAAGTTGGAAAATGTGTGATATTTGAAATTCCTGGTGCCCCTGATGATGAA GCAGTACGGATATTTTTAGAATTTGAGAGAGTTGAATCAGCAATTAAAGCGGTTGTTGACTTGAATGGGAGGTAT TTTGGTGGACGGTGGTAAAAGCATGTTTCTACAATTTGGACAAATTCAGGGTCTTGGATTTGGCAGAACAAGTT TGATTTTAAGAACTAGAGCACGAGTCATCTCCGGTGATCCTTAAATGAACTGCAGGCTGAGAAAAAGAAGGAAAAAA 

MSLYDDLGVETSDSKTEGWSKNFKLLQSQLQVKKAALTQAKSQRTKQSTVLAPVIDLKRGGSSDDRQIVDTPPHV
AAGLKDPVPSGFSAGEVLIPLADEYDPMFPNDYEKVVKRQREERQRQRELERQKEIEEREKRRKDRHEASGFARR
PDPDSDEDEDYERERRKRSMGGAAIAPPTSLVEKDKELPRDFPYEEDSRPRSQSSKAAIPPPVYEEQDRPRSPTG
PSNSFLANMGGTVAHKIMQKYGFREGQGLGKHEQGLSTALSVEKTSKRGGKIIVGDATEKDASKKSDSNPLTEIL
KCPTKVVLLRNMVGAGEVDEDLEVETKEECEKYGKVGKCVIFEIPGAPDDEAVRIFLEFERVESAIKAVVDLNGR
YFGGRVVKACFYNLDKFRVLDLAEQV

MFSRAGVAGLSAWTLQPQWIQVRNMATLKDITRRLKSIKNIQKITKSMKMVAAAKYARAERELKPARIYGLGSLA LYEKADIKGPEDKKKHLLIGVSSDRGLCGAIHSSIAKQMKSEVATLTAAGKEVMLVGIGDKIRGILYRTHSDQFL VAFKEVGRKPPTFGDASVIALELLNSGYEFDEGSIIFNKFRSVISYKTEEKPIFSLNTVASADSMSIYDDIDADV LQNYQEYNLANIIYYSLKESTTSEQSARMTAMDNASKNASEMIDKLTLTFNRTRQAVITKELIEIISGAAAL

TCCCAGCCTTCCCATCCCCCACCGAAAGCAAATCATTCAACGACCCCCGACCCTCCGACGGCAGGAGCCCCCCG ACCTCCCAGGCGGACCGCCCTCCCTCCCGCGCGCGGGTTCCGGGCCCGGCGAGAGGGCGCGAGCACAGCCGAGG CCATGGAGGTGACGGCGGACCAGCCGCGCTGGGTGAGCCACCACCCCGCCGTGCTCAACGGGCAGCACCCGG ACACGCACCACCCGGGCCTCAGCCACTCCTACATGGACGCGGCGCAGTACCCGCTGCCGGAGGAGGTGGATGTGC TTTTTAACATCGACGGTCAAGGCAACCACGTCCCGCCCTACTACGGAAACTCGGTCAGGGCCACGGTGCAGAGGT GCTCCCCGGGGCCCCTCTCCGTCTACCCCCCGGCCTCGTCCTCCTTGTCGGGGGGCCACGCCAGCCCGCACC CGGCCCGGCAGGACGAGAAAGAGTGCCTCAAGTACCAGGTGCCCCTGCCCGACAGCATGAAGCTGGAGTCGTCCC ACGTGCCCGAGTACAGCTCCGGACTCTTCCCCCCCAGCAGCCTGCTGGGCGGCTCCCCCACCGGCTTCGGATGCA AGTCCAGGCCCAAGGCCCGGTCCAGCACAGGCAGGGAGTGTGTGAACTGTGGGGCAACCTCGACCCCACTGTGGC GGCGAGATGGCACGGGACACTACCTGTGCAACGCCTGCGGGCTCTATCACAAAATGAACGGACAGAACCGGCCCC TCATTAAGCCCAAGCGAAGGCTGTCTGCAGCCAGGAGAGCAGGGACGTCCTGTGCGAACTGTCAGACCACCACAA CCACACTCTGGAGGAGGAATGCCAATGGGGACCCTGTCTGCAATGCCTGTGGGCTCTACTACAAGCTTCACAATA TTAACAGACCCCTGACTATGAAGAAGGAAGGCATCCAGACCAGAAAACCGAAAAATGTCTAGCAAAATCCAAAAAGT GCAAAAAAGTGCATGACTCACTGGAGGACTTCCCCAAGAACAGCTCGTTTAACCCGGCCGCCCTCTCCAGACACA TGTCCTCCCTGAGCCACATCTCGCCCTTCAGCCACTCCAGCCACATGCTGACCACGCCCACGCCGATGCACCCGC CACAGGGCCCCAGCGAGAGTCCCTGCAGTCCCTTTCGACTTGCATTTTTGCAGGAGCAGTATCATGAAGCCTAA ACGCGATGGATATATGTTTTTGAAGGCAGAAAGCAAAATTATGTTTGCCACTTTGCAAAGGAGCTCACTGTGGTG TCTGTGTTCCAACCACTGAATCTGGACCCCATCTGTGAATAAGCCATTCTGACTCATATCCCCTATTTAACAGGG TCTCTAGTGCTGTGAAAAAAAAAATGCTGAACATTGCATATAACTTATATTGTAAGAAATACTGTACAATGACTT TATTGCATCTGGGTAGCTGTAAGGCATGAAGGATGCCAAGAAGTTTAAGGAATATGGGAGAAATAGTGTGGAAAT TAAGAAGAAACTAGGTCTGATATTCAAATGGACAAACTGCCAGTTTTGTTTCCTTTCACTGGCCACAGTTGTTTG TTCAAAGCTGTTGGCCTCTGCAAAGGAAATACCAGTTCTGGGCAATCAGTGTTACCGTTCACCAGTTGCCGTTGA TCAAAGCACCAAAATAAGAAAAGATGTAGATTTATTTCATCATATTATACAGACCGAACTGTTGTATAAATTTAT AATAAACTAGATTACATTCAGTTGGC

TGGCACCGGCATCGGCTGACACTGCCTCCAGCTAGTTATTTCGTCCTCTTCCGTTCTTCACCCCTACACCTT GGAGGTGAACTTCTCACCTGAGGGCTGTAAAGACTCGTTTGAAAATGGAGAGCCAAGAACCAACGGAATCTTCTC AGAATGGCAAACAGTATATCATTTCAGAGGAGTTAATTTCAGAAGGAAAATGGGTCAAGCTTGAAAAAACAACGT ACATGGATCCTACTGGTAAAACTAGAACTTGGGAATCAGTGAAACGTACAACCAGGAAAGAGCAGACTGCGGATG GTGTCGCGGTCATCCCCGTGCTGCAGAGAACACTTCACTATGAGTGTATCGTTCTGGTGAAACAGTTCCGACCAC CAATGGGGGGCTACTGCATAGAGTTCCCTGCAGGTCTCATAGATGATGGTGAAACCCCAGAAGCAGCTGCTCTCC GGGAGCTTGAAGAAGAAACTGGCTACAAAGGGGACATTGCCGAATGTTCTCCAGCGGTCTGTATGGACCCAGGCT TGTCAAACTGTACTATACACATCGTGACAGTCACCATTAACGGAGATGATGCCGAAAACGCAAGGCCGAAGCCAA AGCCAGXXXXXXXAGTTTGTGGAAGTCATTTCTTTACCCAAGAATGACCTGCTGCAGAGACTTGATGCTCTGG TAGCTGAAGAACATCTCACAGTGGACGCCAGGGTCTATTCCTACGCTCTAGCACTGAAACATGCAAATGCAAAGC CATTTGAAGTGCCCTTCTTGAAATTTTAAGCCCAAATATGACACTGGCCATTTTTGTAAACGAGACCACCAGGCC TTCTTCACTAAGACTTTGTATTCAACTTAGTTTAATGTAGATTTGCCATTAGCTTTTTCGTAAAATAAAAGCACA GCTAAAATTAACAAAGAATATAAATGCAAGTATGTTTACTCCAATTTTTTTAAAGCTCAACAGCAGTTAACTACA GCTCAGTTACTTTTCTAGTCCAGTCTGGTAGACAGGGGTATTTGTATAGAGAAATAGACCTGAGTTCTCAATTAG GTCA

TGCGTTTAGGGCGAAGACGGAGTTGTAAACTTCTTAAAATTCCTCTCTCGACACTTCGGTAATTCCTCTTTCGAG GTTCCGGGAGGTGCAGGCAGGAGAGGGAAAGGCAGCAGCGGCGGCAGCTGGAGGATGAAGAAGGAGCATGTGCT TCACTGCCAGTTCTCCGCGTGGTACCCGTTCTTCCGAGGCGTTACCATCAAGAGTGTCATTCTTCCACTTCCTCA GAATGTGAAGGATTATTTACTCGATGATGGAACTCTGGTGGTTTCAGGAAGGGATGATCCACCAACACATTCTCA GCCAGACAGTGATGATGAAGCAGAAGAAATACAGTGGTCTGATGATGAGAACACAGCCACGCTTACGGCACCAGA ATTTCCTGAGTTTGCCACTAAAGTCCAGGAACCTATCAATTCCCTCGGGGGCAGTGTCTTTCCTAAGCTTAATTG GAGTGCCCCAAGGGATGCGTATTGGATAGCAATGAATAGTTCTCTGAAATGTAAAACCCTCAGCGACATCTTTCT GCTTTTCAAGAGTTCCGATTTCATCACTCGTGACTTCACTCAGCCGTTTATTCATTGTACTGATGATTCTCCCAGA  ${\tt TCCATGTATAGAATATGAGCTCGTTCTCCGAAAATGGTGTGAATTGATTCCTGGGGCTGAGTTTCGATGTTTTGT$ CAAGGAAAACAAGCTTATTGGTATTTCTCAAAGAGACTACACACAATACTATGATCATATTTCTAAACAAAAGGA AGAAATTCGCAGATGCATACAAGACTTTTTCAAGAAACACATACAGTACAAATTCTTAGATGAAGACTTTGTGTT CGATATATACAGAGACAGTAGGGGGAAGGTGTGGCTCATTGACTTTAATCCATTTGGTGAAGTCACAGATTCACT GCTGTTCACCTGGGAAGAACTGATATCTGAGAACAACTTAAACGGCGATTTTAGTGAAGTTGACGCTCAAGAGCA GGATTCCCCAGCTTTCCGTTGCACAAACAGTGAAGTGACAGTCCAGCCCAGCCCCTATTTGAGTTACCGGCTACC CAAGGACTTTGTAGACCTCTCTACTGGGAGGGACGCTCACAAGCTAATAGACTTCCTTAAGCTGAAGAGAAATCA GCAGGAGGACGACTGATGAGCGTACTGTAACTGGAGAAGAGGGGCCCCGCCCCACCGCTCCGGGAGCTGCTCAT CAGCCGCAACTTCCTGCCGACCCTGATGCGGGTGGGCCGAGCAGTGTGGACATCAGCCACTTTTTATATTCATGT GAAAACCATACTGTTCTGATAATAAAATGCTTTCTATGAAAT

MKKEHVLHCQFSAWYPFFRGVTIKSVILPLPQNVKDYLLDDGTLVVSGRDDPPTHSQPDSDDEAEEIQWSDDENT ATLTAPEFPEFATKVQEPINSLGGSVFPKLNWSAPRDAYWIAMNSSLKCKTLSDIFLLFKSSDFITRDFTQPFIH CTDDSPDPCIEYELVLRKWCELIPGAEFRCFVKENKLIGISQRDYTQYYDHISKQKEEIRRCIQDFFKKHIQYKF LDEDFVFDIYRDSRGKVWLIDFNPFGEVTDSLLFTWEELISENNLNGDFSEVDAQEQDSPAFRCTNSEVTVQPSP YLSYRLPKDFVDLSTGRDAHKLIDFLKLKRNQQEDD

GCGGCCCGCGCCCGTTTTCGGGAGGAGGCGGAGGCCGAAAGCGAGCCGGTGGATCCATAAAGAACCCAGCCAA CCCGCAGAGGGAGGGGGCTGAGCTGTGAGGAGAGCGGGCCCAAGAACCATGTCTACGCGGGAGTCCTTTA ACCCGGAAAGTTACGAATTGGACAAAAGCTTCCGGCTAACCAGATTCACTGAACTGAAGGGCACAGGCTGCAAAG TGCCCCAAGATGTCCTGCAAAAATTGCTGGAATCTTTACAGGAGAACCACTTCCAAGAAGATGAGCAGTTTCTGG GAGCCGTTATGCCAAGGCTTGGCATTGGAATGGATACTTGTGTCATTCCTTTGAGGCACGGTGGGCTTTCCTTGG TTCAAACCACAGATTACATTTACCCGATCGTAGACGACCCTTACATGATGGCCAGGATAGCGTGTGCCAATGTCC TCAGTGACCTCTATGCAATGGGGGTCACGGAATGTGACAATATGCTGATGCTCCTTGGAGTCAGTAATAAAATGA CCGACAGGGAAAGGGATAAAGTGATGCCTCTGATTATCCAAGGTTTTAAAGACGCAGCTGAGGAAGCAGGAACAT CTGTAACAGGCGCCAAACAGTACTAAACCCCTGGATTGTCCTGGGAGGAGTGGCTACCACTGTCTGCCAACCCA ATGAATTTATCATGCCAGACAATGCAGTGCCAGGGGACGTGCTGGTGCTGACAAAACCCCTGGGGACACAGGTGG CAGTGGCTGTGCACCAGTGGCTGGATATCCCTGAGAAATGGAATAAGATTAAACTAGTGGTCACCCAAGAAGATG TAGAGCTGGCCTACCAGGAGGCGATGATGAACATGGCGAGGCTCAACAGGACAGCTGCAGGACTCATGCACACGT TCAATGCCCACGCCGCCACTGACATCACGGGCTTCGGGATTTTGGGCCATGCGCAGAACCTGGCCAAGCAGCAGA GGAACGAGGTGTCGTTTGTAATTCACAACCTCCCGGTGCTGGCCAAGATGGCTGCGGTGAGCAAGGCCTGCGGAA ACATGTTCGGCCTCATGCACGGGACCTGCCCGGAGACTTCAGGCGGCCTTCTGATCTGTTTACCACGTGAGCAAG CAGCTCGGTTCTGTGCAGAGATAAAGTCCCCCAAATATGGTGAAGGCCACCAAGCATGGATTATTGGGATTGTAG AGAAGGGCAACCGCACAGCCAGAATCATAGACAAACCCCGGATCATCGAGGTCGCACCACAAGTGGCCACTCAAA ATGTGAATCCCACACCCGGGGCCACCTCTTAATCTAGACAGAAATAGCTGTTTTGGTTTTGTTTTTAAATAGATCT ATTTCCCTTATCACTTCAATTAAAGACTATAAACAACAAAAATCTCATTGTGTCTACACATCGGGGTGACCTTAG GTCGGTTTGTAAGTGGATACAATTAATAAAATAAAATCCATTGCCTTTTTTTCCTGTTACATTAACTGAAGATGC ACCTAATCTTGAGGCAGCTTCTGAGTTGAGAATT

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#### 3143/6881 FIGURE 2902

AGAAGAGCCCAGGTTCCTCCTGCCACCTCCAAGCGATGAAGCAGCCCTGGGCCAACTCCAGCATTCTCGTGTGAA CTGCAGAGGAGCCCTGCGCTTCCAGCTACTTGCAGCCAGACAGCCCACCTGAGGATATTGACCATAAGGACTCAT  ${\tt ATCTCATTACAAGAAGCATC} \underline{{\tt ATC}} {\tt GCCGAGCCAGACTACATAGAAGATGACAATCCTGAACTCATTAGGCCTCAGA}$ AACTGATCAATCCTGTAAAAACCTCCCGGAACCATCAAGATCTTCACAGAGAACTTCTTATGAATCAAAAAAGGG GTCTTGCTCCTCAGAACAAACCAGAATTGCAGAAGGTGATGGAAAAAAGAAAACGAGACCAAGTAATAAAGCAGA AGGAAGAAGAAGCACAGAAGAAGAAATCTGACTTGGAAATAGAGCTATTAAAACGGCAGCAGAAGTTGGAGCAGC TTGAACTTGAGAAGCAGAAATTGCAAGAAGAGCAAGAAAATGCCCCCGAGTTTGTGAAGGTGAAAGGCAATCTCA  ${\tt GGAGAACAGGCCAAGACCCCAAGCCCAGGAGTCC\underline{TAC}_{\tt GCTGAGGCTGCACCAAGACCTCGTGTGTCACCCCC}}$ TGACTTGCAGTAGGATTTGGTTTGATTTTCCTACGATCTGGGTGGATGCCTTGCCTGTGACAGTTGCAGTTCCTA TTCGCCAAATGAAGGGCAGTGCCCCGCACGTAAGTTGGAATGATGGACCTGTGTTCAGAGACTTAACAGAACCAA CAAGCAAAACAAGTGAGAACAGGAAAAAGGAAGAGGACACTGGAATCAATTCTTGAGAGTTGCACTACTTGGTTT TTCTTCCATTCCAAGTTTCGTGGGACCCAGAGCCTTTTTTCTTTTAAAAGCTAAAAAACAAGTGTTTAATTCCTC CCCAGAATTGTCTTGTTTAATTTATACTTTCACCCCTGTTGCAGTTAACACCAGAGAAGGAACGTGAATGTCGAG CATTCCTTTTGGTTCTCTGTGTAATAATAGCAGGCTACATAGTGACATTCCAGTTCCAAGAAGGTACATCCTGTC CATTCATTAATTGCTTTGATTACTAGGAGGGTTTCTGTTCAGTTTTGTTTTAAATGTCTTGCTGATCTAGTTCT TTCAGATGGAATAACCTTCCAGTCCCTTAGAGAGTGGAACTAGTCCATATAACCCAGCTTCAGTAGCAAAAGTAG AAGCCGCCACATCTTTCATTTCTCCAAGAGGAGAGTGGGGAAGGTTCCCATGACCAGCTGGGCAGTCAGGATTT CTCTAGGCATTCTAATGTGAAATAAGTGTAGACTGCTGTCAAGGAGGCTTCATCAGAAGATGTATAGCATTTGAA TGTCTAATGATAATGCATATCATTAGAATCCAAGCTTTGAAAATTTCTGATTAATGCTCATGTATTTCTTATCT TIGTTTTTCCTTGTGAAGAAAGACTTTCACCACTGTCTGAGTGATGATGCTGTTGATAAGGATGATGTCGATGAC  ${\tt CGCTCCTCAGAGAGGGGGCCGAGTTACAGACAGCAGCCGCATTCTCATGCAAAATTAGTTTTAAACTGCTAGTGT}$ GGGCATCGGTACCTTTTGCCTGGGTGATACCGAAGAATTGTTGAGGATTTAGTATGCTCCGTAGAGACAGTTCAG AATCCTTAATTAGCACAGTAGAAATTAGCTTTCTATGGGAATGCTTTAGTGTTAGCAGTTGACAATTAGGCCCAT ATTCAATCTGAATGGGAACAAAAGTAAATGCAATGATAATATACTGCTAGTTAGAGAAACATGTTAGTTGATTAT ACCTGAAATGGATTATTTATCTCATCAGCAAGTATTATTTGAATAAAATGAGAAAATGCTTAAGAAAAATTGTTGC GATGCTGTTTGTAAAATGAAGATTCGGGACTGGCTCATATCTTTTTATCTAACTAGATGTCAGATCTTGAAATCT GTATTCTCGAAGCAATTCTGCCACTTGATCGTATTCACAGGGGCCCTGGTAGGCTCCTTTAGAAGGACCATTTCT TCTCACTCAAATCTGCAGAATTATTTGTAATTAGTAATACAAAATCTGGCCAAAAGGAGACTTGTAAATAGCGTA  ${\tt AAGTGGTGTCTTATGCTAAACGGTGGAATGTATAGGCAGAGAAGCTCTTTGAAGTTGTCAGATGAGCTGGGCTCA}$ CAAGCCTGATTCAAACAGGCTGTCGGTCTCCTCTCACCCCTTAATACTGTGCAGCCCAAACTCCTAGGACTCTTG AACATCTGAGCAGTTTTGTGCTTTGAGCCACTTTTTGACAAAAATGGCTCCATTTTTCCACAGCGTGGTTTTCTT AAAATAGTTTAATGTTTTATAGTCTCATAGTAGTAGTGTTGCTTTCTAAGCTATAACAGTCGACTTTATTCTTCT ACTCTGAAAAATCTTGACTTGTTTGAGTGTATATAATATATAAAGGGAGCCTTAATGGATTGGTTTTCATAAT TTAATATTTTTTGTATTTGCTCTTGTATAATTGTTTTTAACGGAAAGTATTAAAGAATTGAGGGTGGAATTCTTA 

 ${\tt MAEPDYIEDDNPELIRPQKLINPVKTSRNHQDLHRELLMNQKRGLAPQNKPELQKVMEKRKRDQVIKQKEEEAQKKSDLEIELLKRQQKLEQLELEKQKLQEEQENAPEFVKVKGNLRRTGQEVAQAQES}$ 

CGCGCCAGAGACGCAGCCGCGCTCCCACCACCCACCCGCGCCCTCGTTCGCCTCTTCTCCGGGAGCCAGT GCACCTACAGCCTGGGCAGCGCGCTGCGCCCCAGCACCAGCCGCAGCCTCTACGCCTCGTCCCCGGGCGGCGTGT ATGCCACGCGCTCCTCTGCCGTGCGCCTGCGGAGCAGCGTGCCCGGGGTGCGGCTCCTGCAGGACTCGGTGGACT TCTCGCTGGCCGACGCCATCAACACCGAGTTCAAGAACACCCGCACCAACGAGAAGGTGGAGCTGCAGGAGCTGA ATGACCGCTTCGCCAACTACATCGACAAGGTGCGCTTCCTGGAGCAGCAGAATAAGATCCTGCTGGCCGAGCTCG AGCAGCTCAAGGGCCAAGGCAAGTCGCGCCTGGGGGACCTCTACGAGGAGGAGATGCGGGAGCTGCGCCGGCAGG TGGACCAGCTAACCAACGACAAAGCCCGCGTCGAGGTGGAGCGCGACAACCTGGCCGAGGACATCATGCGCCTCC GGGAGAAATTGCAGGAGGAGATGCTTCAGAGAGAGAGGAAGCCGAAAACACCCTGCAATCTTTCAGACAGGATGTTG ACAATGCGTCTCTGGCACGTCTTGACCTTGAACGCAAAGTGGAATCTTTTGCAAGAAGAGAGATTGCCTTTTTGAAGA AACTCCACGAAGAGGAAATCCAGGAGCTGCAGGCTCAGATTCAGGAACAGCATGTCCAAATCGATGTGGATGTTT CCAAGCCTGACCTCACGGCTGCCCTGCGTGACGTACGTCAGCAATATGAAAGTGTGGCTGCCAAGAACCTGCAGG AGGCAGAAGAATGGTACAAATCCAAGTTTGCTGACCTCTCTGAGGCTGCCAACCGGAACAATGACGCCCTGCGCC AGGCAAAGCAGGAGTCCACTGAGTACCGGAGACAGGTGCAGTCCCTCACCTGTGAAGTGGATGCCCTTAAAGGAA CCAATGAGTCCCTGGAACGCCAGATGCGTGAAATGGAAGAGAACTTTGCCGTTGAAGCTGCTAACTACCAAGACA  $\tt CTATTGGCCGCCTGCAGGATGAGATTCAGAATATGAAGGAGGAAATGGCTCGTCACCTTCGTGAATACCAAGACC$ TGCTCAATGTTAAGATGGCCCTTGACATTGAGATTGCCACCTACAGGAAGCTGCTGGAAGGCGAGGAGAGCAGGA TTTCTCTGCCTCTTCCAAACTTTTCCTCCTGAACCTGAGGGAAACTAATCTGGATTCACTCCCTCTGGTTGATA CCCACTCAAAAAGGACACTTCTGATTAAGACGGTTGAAACTAGAGATGGACAGGTTATCAACGAAACTTCTCAGC AAGCTCTAGTTCTTAACAACCGACACTCCTACAAGATTTAGAAAAAAGTTTACAACATAATCTAGTTTACAGAAA CAACCAACTTGGTTCTGCTTCAATAAATCTTTGGAAAA

MSTRSVSSSSYRRMFGGPGTASRPSSSRSYVTTSTRTYSLGSALRPSTSRSLYASSPGGVYATRSSAVRLRSSVPGVRLLQDSVDFSLADAINTEFKNTRTNEKVELQELNDRFANYIDKVRFLEQQNKILLAELEQLKGQGKSRLGDLYEEEMRELRRQVDQLTNDKARVEVERDNLAEDIMRLREKLQEEMLQREEAENTLQSFRQDVDNASLARLDLERKVESLQEEIAFLKKLHEEEIQELQAQIQEQHVQIDVDVSKPDLTAALRDVRQQYESVAAKNLQEAEEWYKSKFADLSEAANRNNDALRQAKQESTEYRRQVQSLTCEVDALKGTNESLERQMREMEENFAVEAANYQDTIGRLQDEIQNMKEEMARHLREYQDLLNVKMALDIEIATYRKLLEGEESRISLPLPNFSSLNLRETNLDSLPLVDTHSKRTLLIKTVETRDGQVINETSQHHDDLE

ATCGAGGGAGCAGAACAACCACAAGGAGCCCATGCCTTGGCTACAGTCAAACTTCAGCGTGTCCTATAAGGCA TGTCGTCGCATTTGTGCAAACATTCAGCGGCCTCTTATGTTCACAGATGACTCCCCTGGTGGTGAGGAGATGGCA TTTCCTCCCTGTGTGCAGGTAAAGACTCAAACACTGATTCAGAGCTGCTGTCCCATCTACTCACTGCTCCCATGT TCGGCTGGCGCTGAGGAGACACCTTTAGCTGCTGTGACCCCATGGTCACAAAAGCCACAGAGCTCAGAGCTGCTC CTCAAAGAACATCCTCCCTGTTTGCTTCTTTCTAGCCCCTCTCCTTTCTGGTATCCACGGAACCTATCCTATGAT TACCCGCCTAGAAGGGGTGATGATAGGTTTGGAGACAAGTATCGAGATCGTTATGATTCAGACCAGTCTGGCCGT CGAGGCAGCAGAGACTATGCTAGAGGCTATCATTCCTGGATAGGCAGTGGCAGAAGGGCATTTGGCAGTGGGTAC CCAGGGACAATGACTACAGAGGAGGGACCGCTATGAAGACCGATACAACAGATGGGATGATGGGTCGTGCA GCTCCAGAGATGATTTCTCTCGGGATGATTATAGGTATAATGATAGACGTCCCCCGTCCCCCTCAAAGACCCCAAA CTGAATCTAAAGCCTCATAATACTCCTAAGGGAGATGATTCTTCTGCTAGTACCTCCCAGTCCGGTCGAGCTTAT TTTGTCTTTGGAGGGGCAAAGCCCGTTGATAGAGCTGCTAGAGAAACAAAAAGACACCCAAGCTGGCGAAGTGAA GAAACCCAGGAACCGGAGAGGCACCCAAGCTGGCGAAGTGAAGAAACTCAGGAACTGGAACGGTGGAGGACAGGA ACTGAAAAGTCTCTAGAAAATGAAACACTCAGTAAGGAGGAAGACTGTCACTCTCCAACTTCTAAATCTACCAAA ACTGATCAGCCCCAAAAGAGCTCAGACACAGCACGAATACCCTACAAGTGGTGGGGGAAAAGTAACTCCAGCT CAACCGTCTGAGAAAGGACCAGCAAGGAAAGATGAAAATAAAGTAGGTGTGGTGAATGTCCCAAAAGACCACACT GGGAACTCTAGCCATGGTCCAGGAGACAGAGGGGAACAAAGACCACTGGAAGGAGTCAGATAGGAAAGATGGCAAA AAGGAGCATGACTCCAGATCTGCACCTGAGCCAATATGTGAAATACGGAATTTG<u>TGA</u>

MEGAEQPHKEPMPWLQSNFSVSYKACRRICANIQRPLMFTDDSPGGEEMAFPPCVQVKTQTLIQSCCPIYSLLPC
SAGAEETPLAAVTPWSQKPQSSELLLKEHPPCLLLSSPSPFWYPRNLSYDVTEESIKEFFRGLIISAVRLPREPS
NPERRIRVDVADQAQDTDRDDRSFGRDRNRDSDKTDTDWRARSATDSFDDYPPRRGDDRFGDKYRDRYDSDQSGR
GYWYEYRDGPCRDMDRYGWRDRYDDRGSRDYARGYHSWIGSGRRAFGSGYPGTMTTEEAGTAMKTDTTDGMMGRA
APEMISLGMIIGIMIDVPRPPQRPKLNLKPHNTPKGDDSSASTSQSGRAYFVFGGAKPVDRAARETKRHPSWRSE
ETQEPERHPSWRSEETQELERWRTGSESSHTGTSATPGKSQSDQDAGRRETEKSLENETLSKEEDCHSPTSKSTK
TDQPQKSSDTQHEYPTSGGGKVTPAQPSEKGPARKDENKVGVVNVPKDHTGNSSHGPGDRGNKDHWKESDRKDGK
KEHDSRSAPEPICEIRNL

AGAACATCCAGTCATGGATAAAAATGAGCTGGTTCAGAAGGCCAAACTGGCCGAGCAGGCTGAGCGATATGATGA  ${\tt CATGGCAGCCTGCATGAAGTCTGTAACTGAGCAAGGAGCTGAATTATCCAATGAGGAAAGGAATCTCCTCTCAGT}$ TGCTTATAAAAATGTTGTAGGAGCCCATAGGTCATCTTGGAGGGTCGTCTCAAGTATTGAACAAAAAGACGGAGGG AGCTGAGAAAAAACAGCAGATGGCTCGCGAATACAGAGAGAAAATTGAGACGGAGCTAAGAGATATCTGCAATGA TGTACTGTCTCTTTTGGAAAAGTTCTTGATCCCCAGTGCTTCACAAGCAGAGAGCAAAGTCTTCTATTTGAAAAAT GGAAGGAGATTACTACCGTTACTTGGCTGAGGTTGCCGCTGGGGATGACAAGAAAGGGATTGTGGATCAGTCACA CCTTAACTTCTCTGTGTTCTATTATGAGATTCTGAACTCCCCAGAGAAAGCCTGCTCTCTTGCAAAGACAGCTTT TGATGAAGCCATTGCTGAACTTGATACATTAAGTGAAGAGTCATACAAAGACAGCACGCTAATAATGCAATTACT GAGGGACAACCTGACACTGTGGACATCAGATACCCAAGCAGACGAAGGTGAAGCAGGAGAAGGAGTGGAAAATTA ACCGGCCTTCCAGCTTTTGTCTGCCTCATTCTAAAATTTACACAGTAGACCATTTGTCATCCATGCTGTCCCACA AATAGTTTTTTGTTTATGACTTATGTCAGGTTTATGTTACTTCTATTTGAATTTCTCTATTTCCCATACGGTTTC TATGTTTAATATTAGGGGAGGAGGAAGTTAACATTTAGGGAGTTATCTGTTTTCATCTTGAGGTGTTCAATAT GGGGACGTGGAATTTTTATACAGGTTATAAATGTTTGGCATAGTACTTTTGGTATATTGTGGCTTCACAAGGGCC AGTGTTAAAACTGCTTCCATGTCTAAGCAAAGAAAACTGCCTACATATTGGTTTGTCCTGGTGGGGAATAAAAGG GATCATTGGTTCCAGTCACAGGTGTAGTAATTGTGGGTACTTTAAGGTATGGAGCACTTACAAGGCTGTGGTAGA AACAGATGCCCCATGGATACCACATGTTAAACCATGTATAATTGTGGAATACTCAATCTCATACCTTTGACCACA GCTGCAGAAGTGTTCTTTAGACACAGTTGTGACCCATTTTACTCTGTATAAGGGCAGAAATGGTTCACATTCCA TTATTATAAAGTTACCTGCTGTTAGCATTCATTATTTTTGCTACACTCATTTTATTTGTATTAAATGTTTTAG GCAACCTAAGAACAAATGTAAAAGTAAAGATGCAGTAAAAATGAATTGCTTGGTATTCACTACTTCATGTATATC **AAGCACAGCAATAAAACAAAAACCCATGTATTTAACTTTTTTTAGGTTTTTTGCTTTTGTGATTTTTTTGATAC** TTGCCTAACATGCATGTGCTGTAAAAATAGTTAACAGGGAAATAACTTGAGATGATGGCTAGCTTTGTTTAATGT CTTATGAAATTTCATGAACAATCCAAGCATAATTGTTAAGAACACGCTATTAAATTCATGTAAGTGGAATAAA CGTTTTATGAATGGACTTTTCAACTACTTTCTCTACAGCTTTTCATGTAAATTAGTCTTTTGGTTCTGAAACTTC  ${\tt TCTAAAGGAAATTGTACATTTTTTGAAATGTATTCCTTATTCTCTCTTGGCAGCTAATGGGCTTTTACCAAGTT}$ TAAACACAAAGTTTATCATAACAACAAAAATACTACTAATATAACTACTGTTTCCATGTCCCATGATTCCCTCTC ATGTTCCATTTGAAATATTGGTAAATGGCATTTTCTAACTTAGGAAGCCACAGTGTTCTTGGCCCATCATGACAT TGGGTAGCATTAACTATAAGTTTTGTGCTTCCAAATAACTTTTTGGTTTTTAACAATTTCTTGATACTCTTATAG  $\verb|CCTGCCTTCAGTGTTGATCCTTTATTCTTTCTATCTGTCAGGTGCACAAGATTACCCTCCTTTTTTAGCCTTCTG|\\$ TCTTTCTTGTCACCAACCATTCCTACTTGGTGGCCATGTACTTGGAAAAAGGCCGCATGATCTTTCTGGCTCCAC TCAGTGTCTAAGGCACCCTGCTTCCTTTGCTTGCATCCCACAGACTATTTCCCTCATCCTATTTACTGCAGCAAA TCTCTCCTTAGTTGATGATACTGTGTTTATCTCCCTTTAAAACCCTACCTGAATGGTCTGTCATTGTCTG CCTTTAATCCTTCCTCTTTCTCTCTATTCTCTAAATAATGATGGGGCTAAGTTATACCCAAAGCTCACTTT CAGAATGTAAGCTCCTCAAGAACAGGGACAATGTTTTCTGTATGTTCTATTGTGCCTAGTACACTGTAAATGCTC AATAAATATTGATGATGGGAGGCAGTGAATCTTGATAAGGGTGAGAAACTGAAATCCC

GCTCGGAGCCTCGGCGGACCTTGCTGCTCTCTTTAACGCGAGAGGAAGCGATGCAGAGGGGTGGAAAATG GCAGAGCTGCAGATGTTACTAGAGGAGGAGATCCCGTCTGGCAAGAGGGCGCTGATCGAGAGTTACCAGAACCTG ACTCGGGTGGCAGACTACTGTGAAAACAACTACATACAGGCTACAGACAAGAGAAAAGCTTTAGAGGAGACCAAA GAGAAAGTGGCACGAAGAGAGTTGGTATTTTGACAACAAATAAGAATACATCAAGAACTCACAAAATAATAATAGCA CCTGCGAATATGGAGCGCCCTGTAAGGTATATTCGGAAACCTATCGATTACACAGTTCTGGATGATGTGGGCCAT GGTGTCAAGTGGCTAAAAGCCAAGCATGGAAATAACCAGCCTGCAAGAACTGGCACACTGTCGAGAACAAATCCT CCTACTCAGAAACCGCCAAGTCCTCCCATGTCAGGCCGGGGAACACTGGGACGGAATACTCCTTATAAAACCCTG GAACCTGTTAAACCCCCAACAGTTCCTAATGACTATATGACCAGTCCTGCTAGGCTTGGAAGTCAGCATAGTCCA GGCAGGACAGCATCTTTAAATCAGAGACCAAGGACACAGTGGAAGTAGTGGAGGAAGTGGAAGTCGAGAAAAAC TCTGTCCCTCCTCTCTGGAGCTCCACCAGCACCACCTCTGGCACCACTTCTCCCAGTGAGCACTGTGATAGCA GCCCCGGGCTCAGCTCCTGGTTCCCAGTATGGCACAATGACCAGGCAGATATCTCGACAACTCTACTACTTCT TCGACATCTTCTGGTGGATACAGACGAACTCCCTCTGTGACTGCTCAATTTTCTGCTCAGCCTCATGTTAATGGA GGTCCACTTTATTCTCAAAATTCAATTTCTATTGCTCCACCCCCTCCCCCTATGCCTCAGTTGACTCCACAGATA GATGACATTCCCATGTTTGATGACTCTCCACCTCCCCCACCACCACCACTGGATTATGAAGATGAGGAGGCT GCAGTAGTTCAGTATAATGATCCATATGCAGATGGGGATCCTGCTTGGGCCCCCAAGAATTATATTGAGAAAGTT GTTGCAATATATGATTATACAAAAGACAAGGATGATGAGCTGTCATTTATGGAGGGTGCAATCATTTATGTTATA AAGAAGAATGATGATGGCTGGTATGAAGGAGTCTGCAATCGAGTGACTGGTCTGTTCCCTGGGAACTATGTTGAA CTATTATGGTTAACAGAACTGTCTŢAATATGTTTTAAAATGTGCCCATATTTTCAGAACATGCTGTTTTATTGGT AAATTGAATGTCTACCTGTAAGCATAAATCTTTGAGGCAGTTTATGTATTGCTGAATAGCAATTTATACAAGAAG CTGTCCATAACTGATTATGCTTATGTACTTACATACTTTATACTTTATGACCAGCCTAAATATTCTGGGGG AAGTGGGGTATAATATTTAACGAATCATGATTCAGATTGTACCATTACATGTTTCAGTGCAGCATGGTTACTAAC GCTATGTCAGACTAATATTAAAATCAGAAAATTTAAATGCTGGTGCTGGTCAGACTTTTTTTGTTAGATTCTCTC ATTTAAAAAAATTCTGTTTGTTTAAAGCATGCATAAAAATTTATGTATTGAAATATACTTAAAAATTCAAGATG  $\verb|CTTCCCATTTGTGTAATATTTACCTGGAGGACTCGTACTTAGGTGTCTTAACGTGAATTGAGTCTCCAAGGTCTC| \\$ CATGTGAAACAAGCAAAAAGGAATTATCTGTAATGTTGTAATTTTGTACCTAAGTTTTTTAATGAGTGAAATTTG CATTATAAACTTTTTCCATTCATAAATACATAAGTGAACCAAAGGTTTTTGTCCTTTCCTTCACTGATTTGCTTT AAAAAAATAAAAGATAATGATTTATTG ·

## 3151/6881 FIGURE 2910A

GGGGAGGCCATTTTCCGTTTCTGGGAGGAGTGAGGGGCAACGGGTCGGAGAAAAAAGGAAAAAAGGACTCAGC GCCTCCCGCGGGCCGTGGACAGAGGGGCACAGTTTCGGCAGGCGGGTGAGGTCGCTGAGGGCCCGCCGGAGAT GTTTTCCTTGTCGAGCACGGTGCAACCCCAGGTTACAGTTCCTCTGAGTCATCTCATCAATGCCTTCCATACACC AAAAACACTTCTGTTTCTCTCAGTGGAGTGTCAGTTTCTCAAAACCAGCATCGAGATGTAGTTCCTGAGCATGA GGCTCCCAGCAGTGAGTGTATGTTCAGTGACTTCCTGACGAAGCTTAACATTGTTTCAATTGGCAAAGGAAAAAT ATTCGAAGGGTACAGATCCATGTTCATGGAGCCAGCAAAAAGGATGAAGAGCTTGGACACAACCGATAACTG GCACATCCGTCCAGAACCCTTCTCCCTCTCAATCCCTCCTTCACTTAACTTAAGGGACCTTGGATTATCTGAACT AAAAATTGGACAGATTGATCAGCTGGTAGAAAATCTACTTCCTGGATTTTGTAAAGGCAAAAACATTTCTTCCCA  ${\tt ACGTTCCTCTTGCTTGTATCGACATCATTCAAGAGCTCTTCAAAGCATTTGTTCAGATCTTCAGTACTGGCCAGTCTTCAAAGCATCTTCAGATCAGATCTTCAGATCAGATCTTCAGATCAGATCAGATCTTCAGATC$ TTTCATACAGTCTCGGGGTTTTAAAACTTTGAAATCAAGGACACGACGTCTCCAGTCTACCTCCGAGAGATTAGC TGAAACACAGAATATAGCGCCATCATTCGTGAAGGGGTTTCTTTTGCGGGACAGAGGATCAGATGTTGAGAGTTT GGACAAACTCATGAAAACCAAAAATATACCTGAAGCTCACCAAGATGCATTTAAAACTGGTTTTGCGGAAGGTTT TCTGAAAGCTCAAGCACTCACACAAAAAACCAATGATTCCCTAAGGCGAACCCGTCTGATTCTCTTCGTTCTGCT GCTATTCGGCATTTATGGACTTCTAAAAAACCCATTTTTATCTGTCCGCTTCCGGACAACAACAGGGCTTGATTC TGCAGTAGATCCTGTCCAGATGAAAAATGTCACCTTTGAACATGTTAAAGGGGTGGAGGAAGCTAAACAAGAATT ACAGGAAGTTGTTGAATTCTTGAAAAATCCACAAAAATTTACTATTCTTGGAGGTAAACTTCCAAAAGGAATTCT TTTAGTTGGACCCCCAGGGACTGGAAAGACACTTCTTGCCCGAGCTGTGGCGGGAGAAGCTGATGTTCCTTTTTA AGCAAAGGCGAATGCTCCTTGTGTTATATTTATTGATGAATTAGATTCTGTTGGTGGGAAGAAGAATTGAATCTCC TATCATAATAGGAGCCACAAACTTCCCAGAGGCATTAGATAATGCCTTAATACGTCCTGGTCGTTTTGACATGCA AGTTACAGTTCCAAGGCCAGATGTAAAAGGTCGAACAGAAATTTTGAAATGGTATCTCAATAAAATAAAGTTTGA TCAATCCGTTGATCCAGAAATTATAGCTCGAGGTACTGTTGGCTTTTCCGGAGCAGAGTTGGAGAATCTTGTGAA CCAGGCTGCATTAAAAGCAGCTGTTGATGGAAAAGAAATGGTTACCATGAAGGAGCTGGAGTTTTCCAAAGACAA AATTCTAATGGGGCCTGAAAGAAGAAGTGTGGAAATTGATAACAAAAACAAAACCATCACAGCATATCATGAATC TGGTCATGCCATTATTGCATATTACACAAAAGATGCAATGCCTATCAACAAAGCTACAATCATGCCACGGGGGCC AACACTTGGACATGTGTCCCTGTTACCTGAGAATGACAGATGAAATGAAACTAGAGCCCAGCTGCTTGCACAAAT GGATGTTAGTATGGGAGGAGGAGGTGGCAGAGGGGCTTATATTTGGAACCGACCATATTACAACAGGTGCTTCCAG TGATTTTGATAATGCCACTAAAATAGCAAAGCGGATGGTTACCAAATTTTGGAATGAGTGAAAAGCTTGGAGTTAT GACCTACAGTGATACAGGGAAACTAAGTCCAGAAACCCAATCTGCCATCGAACAAGAAATAAGAATCCTTCTAAG GGACTCATATGAACGAGCAAAACATATCTTGAAAACTCATGCAAAGGAGCATAAGAATCTCGCAGAAGCTTTATT GACCTATGAGACTTTGGATGCCAAAGAGATTCAAATTGTTCTTGAGGGGAAAAAGTTGGAAGTGAGATGATAACT CTCTTGATATGGATGCTTGCTGGTTTTATTGCAAGAATACAAGTAGCATTGCAGTAGTCTACTTTTACAACGCTT TCCCCTCATTCTTGATGTGTAATTGAAGGGTGTGAAATGCTTTGTCAATCATTTTGTCACATTTATCCAGTTT GGGTTATTCTCATTATGACACCTATTGCAAATTAGCATCCCATGGCAAATATATTTTGAAAAAAATAAAGAACTAT TTACTCTACTAGATTTGATAAAAATTGTGCCTTTAGCCTTCTATATACATCAGTGGAAACTTAAGATGCAGTAAT TATGTTCCAGATTGACCATGAATAAAATATTTTTTAATCTAAATGTAGAGAAGTTGGGATTAAAAGCAGTCTCGG AAACACAGAGCCAGGAATATAGCCTTTTGGCATGGTGCCATGGCTCACATCTGTAATCCCAGCACTTTTGGAGGC TGAGGCGGGTGGATTGCTTGAGGCCAGGAGTTCGAGACCAGCCTGGCCAACGTGGTGAAACGCTGTCTCTACTAA **AATACAAAAAATAGGGCTGGGCGCGGTTGCTCACGCCTGTAATCCCAGCACTTTTCAGAGGCCAAGGCGGGCAA** ATCACCTGAGGTCAAGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAACATGCAAAAAT TACCTGGGCATGGTGGCAGGTGCTTATAATCCCAGCTACTCTGGGGGCCCAAGGCAGGAGAATTGCTTGAGCCTGG GAGATGGAGGTTGCAGTGAGCTGAGATCATGCCACTGCACTCCAGCCTGGGCAACAGAGCAAGACTCTGCCTCAA AAAAAATTAAATTAAATTTAAATACAAAAAAAAAATAGCCAGGTGTGGGGTGCATGCCTGGAATCCCAGCTACTT GAGAGGCTGAGGCACGAGAATTGCTTGAACCCAGGAGGTGGAGGTTGCAGTGAGCCAAGATCACAGGAGCCACTG 

# 3152/6881 FIGURE 2910B

GCTGTGTGCATTTTCATGTTCTTTTTTTTAGCATTACTGTCACTCTCCCTAATGAAATGTACTTCAGAGAAGCAG
TATTTTGTTAAATAAATACATAACCTCATTCTGAATAATGTCCCTCATTTTGACTATAACTGTGCTTGGTTTCAA
AAGCAAAATTAAACAAAAATCTCAGTCCCCTCCGAAGTGAACTTTGTGTTACCCTGCGTCAGAAATGCCAAGTTG
TGTTTACTTTTCATTCAGATTTTGTGAATATGAACATGCTGTTATAGGATCTACAGATGAATATTTAACTCAATA
GAAAAATTATTTTAGAACACATTGTATTGGTATTACAACCAGATTATATTCTTGACGTTGACTTCATTAAAATT

VTNTKRKRRGTRYMFFRPFRKHGVVPLATYMRIYKKGDIVDIKGMGTVQKGMPHKCYHGKTGRVYNVTQHAVGIV VNTQVKGKILAKRINVFIEHIKHSKSRDSFLKRMKENDQKKKEAKEKGTWVQLKRQPAPPREAHFVRTNGKEPEL LEPIPYEFMA

## 3155/6881 FIGURE 2913A

CCACCGAGGCCAGGTTGGGGAAGTTCAGCCTCGAGGACACTAGGGGACGAAAAACTTCAAAAAGAAGACTCTTTT TATTAATATTTTGGCGTTCTTTTTGGAGAGGAACTTTTGGGATGTAGCCTTTACCTGTTTCCTGAATTTGACATC CAAAAAGCCTTTTGGAAAACACCATTCTAAATTTATCCTGTTCTGAATCATCGCTTCTGATAGATGCAGTTG CTTGCTGACATCGTGATCTTTGATTTTGTACAACGCTATTTGGGCTAACTTTTGGGATTTTACTTTGTGCTTAGA ATTTGAAAGTAGTATTCATTGGAAAGAGACTCCAAGAAAATACTCGAAGACATCAAAAGCTGGATTCGAGGGTAT AGGAACGAGGATTATACAGAAATTTGAAATTTCAACAAGAAAAACTTAAGCTTCCTTGGATTCCCACGTCAAAGG AAAGTTTCAAGCTTTCAGAAGGAGTTCTCACTCGAAGATAAAGAACAGCTCGCTAACCACGAAAGAGGAATCGAT GAAATGAAAAGAAAGAAAGAATTGCCAGGCGCCTGGAAGGGATTGAAAATGACACTCAGCCCATCCTCTTGCAG AGCTGCACAGGATTGGTGACTCACCGCCTGCTGGAGGAAGACACCCCTCGATACATGAGAGCCAGCGACCCTGCC AGCCCCCACATCGGCCGATCAAATGAAGAGGAGGAAACTTCTGATTCTTCTAGAAAAGCAAACTCGATCCAAA TACTGCACAGAAACCTCCGGTGTCCACGGTGACTCACCCTATGGTTCGGGTACCATGGACACCCACAGTCTGGAG GGAGGAAAAAGTGACAAACAGGAAGAGTCAAGCAGAGATGCTAGTTCTCTGTACCCCGGGACCGAGACGATGGGG CTCAGGACCTGTGCCGGTGAATCCAAGGACTATGCCCTCCATGTGGGTGACGGCTCTTCCGACCCGGAGGTGCTG CTGAACATAGAAAACCAAAGACGAGGTCAAGAGCTGAGTGCCACCCGGCAGGCCCATGACCTGTCCCCAGCAGCC GAGAGTTCCTCGACCTTCTCTTTCTCTGGGCGAGACTCCTCCTTCACTGAAGTGCCACGGTCCCCCAAGCACGCC CACAGCTCCTCCCTGCAGCAGCCAGCCTCCCGGAGCCCCTCCTTTGGTGACCCACAGCTATCCCCTGAGGCCCGA CCCAGTACAGGGAAACCCAAACATGAGTGGTTTCTCCAGAAAGATTCCGAAGGGGACACACCTTCACTTATCAAC TGGCCTTCCAGAGTTAAAGTTAGAGAAAAATTGGTGAAAGAGGAAAGTGCTCGAAACAGCCCTGAACTCGCCTCA GAGTCCGTAACTCAGAGGAGACACCAGCCAGCGCCAGTCCATTACGTGTCATTTCAGTCTGAGCACTCAGCCTTT GATAGGGTCCCCAGCAAGGCAGGCTCTACACGACAGCCAATCCGTGGCTATGTCCAACCCGCAGATACCGGT CACACCGCCAAGCTAGTGACGCCAGAAACCCCAGAAAATGCATCTGAGTGTAGCTGGGTAGCATCAGCCACCCAG AATGTCCCCAAACCTCCCAGCTTGACGGTTCTAGAAGGTGACGGAAGGGATAGCCCAGTTCTCCATGTCTGCGAG GAGCAAAGCAAGAAAACCCTACTGGCTTTGGAGGGTGATGGGCTAGTGAGAAGCCCCAGAAGATCCCTCTAGAAAT GAGGACTTTGGTAAGCCTGCTGTGAGCACAGTCACCTTAGAGCATCAGAAGGAACTGGAAAACGTGGCACAACCC TCCCAAGACGCCAAACCAACTGGTCACAACAGGGAAGCCTCGAAAAAGCGCAAGGTCCGTACCCGCTCTCTGTCA GATTTCACAGGCCCCCCCAGCTCCAGGCCTTGAAGTATAAGGACCCAGCTTCCAGGAGAGAGCTGGAGCTGCCC AGCTCCAAGACCGAAGGGCCTTATGGGGAGATCAGCATGCTGGACACAAAAGTCTCTGTCGCCCAGCTCCGAAGT GCGTTCCTGGCATCTGCCAACGCCTGCAGGAGACCTGAACTCAAATCACGGGTGGAGAGGTCGGCTGAAGGACCT GGCTTGCCCACCGGTGTGGAACGGGAGAGAGGGTCCCGGAAACCAAGACGCTATTTTTCTCCTGGTGAAAGTAGA AAAACTTCCGAGAGATTTAGAACCCAACCTATAACTTCAGCAGAACGAAAGGAATCGGATAGGTGCACTTCACAT TCAGAAACGCCAACTGTCGATGATGAAGAAAAGGTGGATGAACGAGCCAAGCTGAGCGTCGCCGCCAAGAGGTTG CTTTTCAGGGAGATGGAAAATCTTTTGATGAACAAAATGTTCCAAAGCGACGCTCAAGAAACACAGCTGTGGAG CAGAGGCTACGCCGTCTGCAGGACAGGTCCCTCACCCAGCCCATCACCACTGAAGAGGTGGTCATCGCAGCCACT GAACCTATCCCCGCTTCGTGTTCTGGGGGCACCCACCCTGTAATGGCGAGACTTCCTAGCCCCACTGTAGCTAGG AGCGCTGTGCAGCCTGCCAGATTGCAGGCCTCTGCTCACCAAAAGGCCTTAGCCAAGGACCAGACAAATGAGGGC AAAGAGCTTGCTGAGCAAGGAGAACCTGATTCCTCCACTCTAAGCTTGGCCGAAAAGTTGGCCTTGTTTAACAAA TTGTCCCAGCCAGTCTCAAAAGCGATTTCTACCCGGAACAGAATAGACACGAGACAGAGGAGAATGAACGCTCGC TATCAAACTCAGCCAGTCACACTGGGAGAGGTGGAGCAGGTGCAGAGTGGAAAGCTCATTCCTTTCTCACCTGCC GTGAACACATCAGTGTCTACCGTAGCATCCACGGTTGCTCCAATGTATGCCGGAGATCTTCGCACAAAGCCACCT CTTGACCACAATGCAAGTGCCACTGACTATAAGTTTTCTTCTTCAATAGAAAATTCGGACTCTCCAGTTAGAAGC ATTCTGAAATCGCAAGCTTGGCAGCCTTTGGTAGAGGGTAGCGAGAACAAGGGAATGTTGAGAGAATATGGAGAG

#### 3156/6881 FIGURE 2913B

ACAGAAAGCAAGAGCTTTGACAGGTCGAGACAGTGGGATGGAGAAGTATGGGTCCTTTGAGGAAGCAGAAGCA  ${\tt TCCTACCCCATCCTGAACCGAGCCAGGGAAGGAGACAGCCATAAGGAATCTAAATATGCTGTTCCCAGAAGAGGA}$ AGCCTGGAACGGGCGAACCCTCCCATCACCCACCTCGGGGATGAACCGAAGGAATTTTCCATGGCTAAAATGAAT AAGTTTTCACTAAGAGCGGCAGAGTTCGGGGAGCCCACTTCCGAGCAGACGGGGACAGCTGCTGGGAAAACTATT  ${\tt GCTCAAACCACAGCCCCCGTGTCCTGGAAGCCCCAGGATTCTTCGGAACAGCCACAGGAGAAGCTCTGCAAGAAT}$ CCATGTGCGATGTTTGCTGCTGGAGAGATCAAAACGCCGACAGGGGAGGGCCTTCTTGACTCACCCAGCAAAACC ATGTCTATTAAAGAAAGATTGGCACTGTTGAAGAAAAGCGGGGAGGAAGATTGGAGAAACAGACTCAGCAGGAGG CAGGAGGCCGCCAGCCAGCAGCCTGCACACCCAGGAAGCAGGCCGGTCCCTCATCAAGAAGCGGGTC ACAGAAAGTCGAGAGAGCCAAATGACGATTGAGGAGAGGAAGCAGCTCATCACTGTGAGAGAGGAGGCCTGGAAG TCACCTACTGCCATAACCCCAGTAGCCTCACCCATTTGCGGTAAAACAAGAGGCACCACACCCGTTTCCAAACCC CTGGAAGATATCGAAGCCAGACCAGATATGCAGTTAGAATCGGACCTGAAGTTGGACAGGCTGGAAACCTTTCTA AGAAGGCTGAATAACAAAGTTGGCGGGATGCACGAAACGGTGCTCACTGTCACCGGCAAATCTGTGAAGGAGGTG ATGAAGCCAGATGATGATGAAACCTTTGCCAAATTTTACCGCAGCGTGGATTATAATATGCCAAGAAGTCCTGTG GAGATGGATGAGGACTTCGATGTCATTTTCGATCCTTATGCACCCAAATTGACGTCTTCCGTGGCCGAGCACAAG CGGGCAGTTAGGCCCAAGCGCCGGGTTCAGGCCTCCAAAAACCCCCTGAAAATGCTGGCGGCAAGAGAAAATGTTCTC CTTCAGGAATACACTGAGCAGAGATTAAACGTTGCCTTCATGGAGTCAAAGCGGATGAAAGTAGAAAAGATGTCT TCCAACTCCAACTTCTCAGAAGTCACCCTGGCGGGTTTAGCCAGTAAAGAAAACTTCAGCAACGTCAGCCTGCGG AGCGTCAACCTGACGGAACAGAACTCTAACAACAGCGCCCTGCCCTACAAGAGGCTGATGCTGTTGCAGATTAAA GGAAGAAGACATGTGCAGACCAGGCTGGTGGAACCTCGAGCTTCGGCGCTCAACAGTGGGGAACTGCTTCCTCCTG CTCTCTCCCCACTGCTGCTTCCTGTGGGTAGGAGAGTTTGCAAACGTCATAGAAAAGGCGAAGGCCTCAGAACTT GCAACTTTAATTCAGACAAAGAGGGAACTTGGTTGTAGAGCTACTTATATCCAAACCATTGAAGAAGGAATTAAT ACACACTCATGCAGCCAAAGACTTCTGGAAGCTTCTGGGTGGCCAAACCAGTTACCAATCTGCTGGAGACCCA CCTGATGACGACTACTGGGGGAAAATTCCGAAGTGCTCCCTTCTGCAACCCAAAGAGGTACTGGTGTTTGATTTT GGTAGTGAAGTTTACGTATGGCATGGGAAAGAAGTCACATTAGCACAACGAAAAATAGCATTTCAGCTGGCAAAG CACTTATGGAATGGAACCTTTGACTATGAGAACTGTGACATCAATCCCCTGGATCCTGGAGAATGCAATCCGCTT ATCCCCAGAAAAGGACAGGGGCGGCCCGACTGGGCGATATTTGGGAGACTTACTGAACACAATGAGACGATTTTG TTCAAAGAGAAGTTTCTGGATTGGACGGAACTGAAGAGTCGAATGAGAAGAACCCCGGGGAACTTGCCCAGCAC AAGGAAGACCCCAGGACTGATGTCAAGGCATACGATGTGACACGGATGGTGTCCATGCCCCAGACGACAGCAGGC ACCATCCTGGACGGGTGAACGTCGGCCGTGGCTATGGCCTGGTGGAAGGACACGACAGGAGGCAGTTTGAGATC TTCCATGAGGGGGATGCCTATGTGGTCAAGTGGAAGTTCATGGTGAGCACGGCAGTGGGAAGTCGCCAGAAGGGA GAGCACTCGGTGAGGCAGCCGGCAAAGAGAAGTGCGTCTACTTCTTCTGGCAAGGCCGGCACTCCACCGTGAGT GAGAAGGGCACGTCGGCGCTGATGACGGTGGAGCTGGACGAAGGGAAAGGGGGGCCCAGGTCCAGGTTCTCCAGGGA AAGGAGCCCCCTGTTTCCTGCAGTGTTTCCAGGGGGGGATGGTGCTGCACTCGGGGAGGCGGGAAGAAGAAGAA GCCTGTCACTGTAGCAGCCTGAGGTCCAGAACTTCCATGGTGGTGCTTAACGTCAACAAGGCCCTCATCTACCTG TGGCACGGATGCAAAGCCCAGGCCCACACGAAGGAGGTCGGAAGGACCGCTGCGAACAAGATCAAGGAACAATGT CCCCTGGAAGCAGGACTGCATAGTAGCAGCAAAGTCACAATACACGAGTGTGATGAAGGCTCCGAGCCACTCGGA TTCTGGGATGCCTTAGGAAGGAGAGACAGGAAAGCCTACGATTGCATGCTTCAAGATCCTGGAAGTTTTAACTTC GCGCCCGCCTGTTCATCCTCAGCAGCTCCTCTGGGGATTTTGCAGCCACAGAGTTTGTGTACCCTGCCCGAGCC CGCTGGGCCTCCGACCGGAAGAGTGCGATGGAGACTGTGCTCCAGTACTGCAAAGGAAAAAATCTCAAGAAACCA GCCCCCAAGTCTTACCTTATCCACGCTGGTCTGGAGCCCCTGACATTCACCAATATGTTTCCCAGCTGGGAGCAC AGAGAGGACATCGCTGAGATCACAGAGATGGACACGGAAGTTTCCAATCAGATCACCCTCGTGGAAGACGTCTTA

#### 3157/6881 FIGURE 2913C

## 3158/6881 FIGURE 2914

# 3159/6881 FIGURE 2915

GQPHRVLRHCHRRRALGPRLLLALFADKFPKTAENFRALSTGEKGFSYKGSCFHRIIPGFMYQGRDFTRHNGTGG KSIYGEKFEDENFILKHTGPGILSMANAGPNTNGSQFFICTAKTEWLDGKHVVFGKVKEGMNIMEAMERFGSRNG KTSKKITIADCGQLE

#### 3160/6881 FIGURE 2916A

**ATG**AAAGTGACCGTGTGCTTCGGACGGACCCGGGTGGTCGTGCCGTGCGGGACGGCCACATGAAAGTTTTCAGC CTCATCCAGCAGGCGTGACCCGCTACCGGAAGGCCATCGCCAAGGATCCAAACTACTGGATACAGGTGCATCGC GTAGCAGTGTTTGATGAGCAGGATCCACATCACGGAGGTGATGGCACCAGTGCCAGTTCCACGGGTACCCAGAGC CCAGAGATATTTGGTAGTGAGCTTGGCACCAACAATGTCTCAGCCTTTCAGCCTTACCAAGCAACAAGTGAAATT GAGGTCACACCTTCAGTCCTTCGAGCAAATATGCCTCTTCATGTTCGACGCAGTAGTGACCCAGCTCTAATTGGC CTCTCCACTTCTGTCAGTGATAGTAATTTTTCCTCTGAAGAGCCTTCAAGGAAAAATCCCACACGCTGGTCAACA ACAGCTGGCTTCCTCAAGCAGAACACTGCTGGGAGTCCTAAAACCTGCGACAGGAAGAAGATGAAAACTACAGA CACCCAATGGTGGGCAAGTGGCTGGAGAAACAAGAACAGGATGAGGATGGGACAGAAGAGGGATAACAGTCGTGTT GAACCTGTTGGACATGCTGACACGGGTTTGGAGCATATACCCAACTTTTCTCTGGATGATATGGTAAAGCTCGTA GAAGTCCCCAACGATGGAGGGCCTCTGGGAATCCATGTAGTGCCTTTCAGTGCTCGAGGCGGCAGAACCCTGGGG TTATTAGTAAAACGATTGGAGAAAGGTGGTAAAGCTGAACATGAAAATCTTTTTCGTGAGAATGATTGCATTGTC AGGATTAATGATGGCGACCTTCGAAATAGAAGATTTGAACAAGCACAACATATGTTTCGCCAAGCCATGCGTACA CCCATCATTTGGTTCCATGTGGTTCCTGCAGCAAATAAAGAGCAGTATGAACAACTATCCCAAAGTGAGAAGAAC AATTACTATTCAAGCCGTTTTAGCCCTGACAGCCAGTATATTGACAACAGGAGTGTGAACAGTGCAGGGCTTCAC CACCCTCGGGAAAACCACCATCCGCTCCAGCCTCGGCACCTCAGAATGTATTTAGTACGACTGTAAGCAGTGGT TATAACACCAAAAAATAGGCAAGAGGCTTAATATCCAGCTTAAGAAAGGTACAGAAGGTTTGGGATTCAGCATC ACTTCCAGAGATGTAACAATAGGTGGCTCAGCTCCAATCTATGTGAAAAACATTCTCCCCCGGGGGGGCGGCCATT CAGGATGGCCGACTTAAGGCAGGAGACAGACTTATAGAGGTAAATGGAGTAGATTTAGTGGGCAAATCCCAAGAG TTCCACCCAAGGGAACTGAATGCAGAGCCAGATGCAGATTCCAAAAGAAACGAAAGCAGAAGATGAGGAT ATTGTTCTTACACCTGATGGCACCAGGGAATTTCTGACATTTGAAGTCCCACTTAATGATTCAGGATCTGCAGGC CTTGGTGTCAGTGTCAAAGGTAACCGGTCAAAAGAGAACCACGCAGATTTGGGAATCTTTGTCAAGTCCATTATT AATGGAGGAGCAGCATCTAAAGATGGAAGGCTTCGGGTGAATGATCAACTGATAGCAGTAAATGGAGAATCCCTG TTGGGCAAGACCAAGATGCCATGGAAACCCTAAGAAGGTCTATGTCTACTGAAGGCAATAAACGAGGAATG ATCCAGCTTATTGTTGCAAGGAGAATAAGCAAGTGCAATGAGCTGAAGTCACCTGGGAGCCCCCTGGACCTGAG CTGCCCATTGAAACAGCGTTGGATGATAGAGAACGAAGAATTTCCCATTCCCTCTACAGTGGGATTGAGGGGCTT GATGAATCCCCCAGCAGAAATGCTGCCCTCAGTAGGATAATGGGTGAGTCAGGTAAATACCAGCTGTCCCCTACA GTGAATATGCCCCAAGATGACACTGTCATTATAGAAGATGACAGGTTGCCAGTGCTTCCTCCACATCTCTCTGAC AGTGATTCAGCCGACTGCTCTTTGAGTCCAGATGTTGATCCAGTTCTTGCTTTTCAACGAGAAGGATTTGGACGT CAGAGTATGTCAGAAAAACGCACAAAGCAATTTTCAGATGCCAGTCAATTGGATTTCGTTAAAAACACGAAAAATCA AAAAGCATGGATTTAGGTATAGCTGACGAGACTAAACTCAATACAGTGGATGACCAGAAAGCAGGTTCTCCCAGC AGAGATGTGGGTCCTTCCCTGGGTCTGAAGAAGTCAAGCTCGTTGGAGAGTCTGCAGACCGCAGTTGCCGAGGTG ACTTTGAATGGGGATATTCCTTTCCATCGTCCACGGCCGGGATAATCAGAGGCAGGGGATGCAATGAGAGCTTC AGAGCTGCCATCGACAAATCTTATGATAAACCCGCGGTAGATGATGATGAAGGCATGGAGACCTTGGAAGAA GACACAGAAGAAGTTCAAGATCAGGGAGAGAGTCTGTATCCACAGCCAGTGATCAGCCTTCCCACTCTCTGGAG AGACAAATGAATGGAAACCAAGAGAAAGGTGATAAGACTGATAGAAAAAAGGATAAAACTGGAAAAAGAAAAGAAG AAAGATAGAGATAAGGAGAAGGATAAAATGAAAGCCAAGAAGGGAATGCTGAAGGGCTTGGGAGACATGTTCAGG TTTGGCAAACATCGAAAAGATGACAAGATTGAGAAAACGGGTAAAATAAAAATACAGGAATCCTTTACATCAGAA GAGGAGAGGATACGAATGAAGCAGGAGCAGGAGAGATTCAAGCCAAAACTCGAGAATTTAGGGAACGACAAGCT CGAGAGCGTGACTATGCTGAAATTCAAGATTTTCATCGGACATTTGGCTGTGATGATGAGTTAATGTATGGGGGA TTGTATGCCCAAGTCAAGAAGCCGCGGAATTCCAAACCCTCACCTGTAGACAGTAACAGATCAACTCCTAGCAAT 

# 3161/6881 FIGURE 2916B

## 3162/6881 FIGURE 2917

MKYTYCFGRTRVVVPCGDGHMKVFSLIOOAVTRYRKAIAKDPNYWIQVHRLEHGDGGILDLDDILCDVADDKDRL VAVFDEQDPHHGGDGTSASSTGTQSPEIFGSELGTNNVSAFQPYQATSEIEVTPSVLRANMPLHVRRSSDPALIG LSTSVSDSNFSSEEPSRKNPTRWSTTAGFLKQNTAGSPKTCDRKKDENYRSLPRDTSNWSNQFQRDNARSSLSAS HPMVGKWLEKOEQDEDGTEEDNSRVEPVGHADTGLEHIPNFSLDDMVKLVEVPNDGGPLGIHVVPFSARGGRILG LLVKRLEKGGKAEHENLFRENDCIVRINDGDLRNRRFEQAQHMFRQAMRTPIIWFHVVPAANKEQYEQLSQSEKN NYYSSRFSPDSQYIDNRSVNSAGLHTVQRAPRLNHPPEQIDSHSRLPHSAHPSGKPPSAPASAPQNVFSTTVSSG YNTKKIGKRLNIQLKKGTEGLGFSITSRDVTIGGSAPIYVKNILPRGAAIQDGRLKAGDRLIEVNGVDLVGKSQE EVVSLLRSTKMEGTVSLLVFRQEDAFHPRELNAEPSQMQIPKETKAEDEDIVLTPDGTREFLTFEVPLNDSGSAG LGVSVKGNRSKENHADLGIFVKSIINGGAASKDGRLRVNDQLIAVNGESLLGKTNQDAMETLRRSMSTEGNKRGM IQLIVARRISKCNELKSPGSPPGPELPIETALDDRERRISHSLYSGIEGLDESPSRNAALSRIMGESGKYQLSPT VNMPQDDTVIIEDDRLPVLPPHLSDQSSSSSHDDVGFVTADAGTWAKAAISDSADCSLSPDVDPVLAFQREGFGR OSMSEKRTKOFSDASQLDFVKTRKSKSMDLGIADETKLNTVDDQKAGSPSRDVGPSLGLKKSSSLESLQTAVAEV TLNGDIPFHRPRPRIIRGRGCNESFRAAIDKSYDKPAVDDDDEGMETLEEDTEESSRSGRESVSTASDQPSHSLE ROMNGNOEKGDKTDRKKDKTGKEKKKDRDKEKDKMKAKKGMLKGLGDMFRFGKHRKDDKIEKTGKIKIQESFTSE EERIRMKQEQERIQAKTREFRERQARERDYAEIQDFHRTFGCDDELMYGGVSSYEGSMALNARPQSPREGHMMDA LYAQVKKPRNSKPSPVDSNRSTPSNHDRIQRLRQEFQQAKQDEDVEDRRRTYSFEQPWPNARPATQSGRHSVSVE VQMQRQRQEERESSQQAQRQYSSLPRQSRKNASSVSQDSWEQNYSPGEGFQSAKENPRYSSYQGSRNGYLGGHGF NARVMLETOELLRQEQRRKEQQMKKQPPSEGPSNYDSYKKVQDPSYAPPKGPFRQDVPPSPSQVARLNRLQTPEK GRPFYS

CTATTCTGAAACGTGTTTTGCCCGAGGCCTGGGGTGCAGGCACCGCTGTACCTGGGGTGAGGGGAGCTGCCGGGC  $\tt CTTTCAGCCCGGTGGTCTCCACGATGCTCCCATCTGTGTGGACGACAATCAGTGTCGCTTTTTCGGTGTTCAGGC$ TGTCCCCGATCTGAAGGGCCGTCCTACCAGACTAGAAGGAAAAACCGCTCCCTGGGCCGTCCTCCAGCAGGGCTC TCTGGCTGTTCTCACCAAGAAGGGACGCTCACCTAGGCACCCCATATCTTTTCCAAAGATACCTCTCAAAGACTT CCGTCTTCATGCAGAGTTTCCAACAGACCGAGTTGGCCGCCACAGACAAGGCCTTGTGCAGGACCGCCCTCCAGA CCTCCTTACAGATGGCAACTGGAGACCAGGGCCTCAAAACCACATTTCCACACTGGCTGAAGCTGCTGCAACTGC TGCCTGCTTCCAAAATCAGCCTTCAGGCGGCACAGACCCCGCCACAGGAAGCCAGAGTCTCCATGCCCACACAC ACTGCTGGAACTTGAACCCTACCTTGGCCAAGTCATCCGGCAAACTCTGGCCTGCAGGCTCTGTTCACCCCACGG CCCAGCTGCTTTGCCGCCGAGTCCGAGTCCTCCATCCGGACTCCGCCGAGCCTTCCCGAAGGCGCCGTCCGGGAC CGCCCGAAGCGCCGGCCCAGCGACCAGAAGGCCCAAAGCGTGTCATCCAAGCCCGGCTTTCGCTGGGCACAACCC TAGTGGGAGCGGTGGGGACAGACCCAGCTCGGCCAGACGGTCGGCAGGCCCCAGGAGGGCCCATGAGTCAGAGGGC AAGGCTGAAACTGGATTTGGAGATCTTAGCCCAGGCTGACGGAGGCTCCCAAGAAGGGGGAGCAGGCCACACTCA GCACCCTGCGTGGGAGGGCCCCTGACCGCCAGATGGGCGGTCCACCTGAGCCGCACCCTTGGAGGGGCCTTTGG CCTAGCCATCGACGAGTACAAGCCCCAGGATGCTACCACCAACCCGTCCCTGATCCTGGCCGCAGCACAGATGCC CGCTTACCAGGAGCTGGTGGAGGAGGCGATTGCCTATGGCCGGAAGCTGGGCGGCACTTTGTCCTACAGCTTGAC ACAGCAAGAATATTCCTGTTCCCTTAACGCATTTCCAGGACCGTGGCCAATGGCAGACACCAGGTCATTAAACCC AGTCACAGCTGAATGA

## 3164/6881 FIGURE 2919A

AGCCGCCGCCACCCGCCGCCCCGACACCCGGGAGGCCCCGCCAGCCCGGGAGAGGCCCAGCGGGAGTCGCGG AACAGCAGGCCCGAGCCCACCGCGCCCGGGCCCCGGACGCGGGAAAAGATGAATTTACAACCAATTTTCTGG ATTGGACTGATCAGTTCAGTTTGCTGTGTTTTGCTCAAACAGATGAAAATAGATGTTTAAAAGCAAATGCCAAA CCTACTTCTGCACGATGTGATGATTTAGAAGCCTTAAAAAAGGAGGGTTGCCCTCCAGATGACATAGAAAATCCC GAGGATATTACTCAGATCCAACCACAGCAGTTGGTTTTGCGATTAAGATCAGGGGAGCCACAGACATTTACATTA AAATTCAAGAGAGCTGAAGACTATCCCATTGACCTCTACCTTATGGACCTGTCTTACTCAATGAAAGACGAT TTTGGCTCATTTGTGGAAAAGACTGTGATGCCTTACATTAGCACAACACCAGCTAAGCTCAGGAACCCTTGCACA AGTGAACAGAACTGCACCAGCCCATTTAGCTACAAAAATGTGCTCAGTCTTACTAATAAAGGAGAAGTATTTAAT GAACTTGTTGGAAAACAGCGCATATCTGGAAATTTGGATTCTCCAGAAGGTGGTTTCGATGCCATCATGCAAGTT GCAGTTTGTGGATCACTGATTGGCTGGAGGAATGTTACACGGCTGCTGGTGTTTTCCACAGATGCCGGGTTTCAC TTTGCTGGAGATGGGAAACTTGGTGGCATTGTTTTACCAAATGATGGACAATGTCACCTGGAAAATAATATGTAC ACAATGAGCCATTATTATGATTATCCTTCTATTGCTCACCTTGTCCAGAAACTGAGTGAAAATAATATTCAGACA ATTTTTGCAGTTACTGAAGAATTTCAGCCTGTTTACAAGGAGCTGAAAAACTTGATCCCTAAGTCAGCAGTAGGA ACATTATCTGCAAATTCTAGCAATGTAATTCAGTTGATCATTGATGCATACAATTCCCTTTCCTCAGAAGTCATT TTGGAAAACGGCAAATTGTCAGAAGGAGTAACAATAAGTTACAAATCTTACTGCAAGAACGGGGTGAATGGAACA GGGGAAAATGGAAGAAAATGTTCCAATATTTCCATTGGAGATGAGGTTCAATTTGAAATTAGCATAACTTCAAAT AAGTGTCCAAAAAAGGATTCTGACAGCTTTAAAATTAGGCCTCTGGGCTTTACGGAGGAAGTAGAGGTTATTCTT CAGTACATCTGTGAATGTGAATGCCAAAGCGAAGGCATCCCTGAAAGTCCCAAGTGTCATGAAGGAAATGGGACA TTTGAGTGTGGCGCGTGCAGGTGCAATGAAGGGCGTGTTGGTAGACATTGTGAATGCAGCACAGATGAAGTTAAC AGTGAAGACATGGATGCTTACTGCAGGAAAGAAAACAGTTCAGAAATCTGCAGTAACAATGGAGAGTGCGTCTGC GGACAGTGTGTTTGTAGGAAGAGGGATAATACAAATGAAATTTATTCTGGCAAATTCTGCGAGTGTGATAATTTC AACTACACTGGCAGTGCATGTGACTGTTCTTTGGATACTAGTACTTGTGAAGCCAGCAACGGACAGATCTGCAAT GGCCGGGGCATCTGCGAGTGTGGTGTCTGTAAGTGTACAGATCCGAAGTTTCAAGGGCAAACGTGTGAGATGTGT CAGACCTGCCTTGGTGTCTGTGCTGAGCATAAAGAATGTGTTCAGTGCAGAGCCTTCAATAAAGGAGAAAAGAAA GACACATGCACACAGGAATGTTCCTATTTTAACATTACCAAGGTAGAAAGTCGGGACAAATTACCCCAGCCGGTC  ${\tt CAACCTGATCCTGTGTCCCATTGTAAGGAGAAGGATGTTGACGACTGTTGGTTCTATTTTACGTATTCAGTGAAT}$ GGGAACAACGAGGTCATGGTTCATGTTGTGGAGAATCCAGAGTGTCCCACTGGTCCAGACATCATTCCAATTGTA GCTGGTGTGGTTGCTGGAATTGTTCTTATTGGCCTTGCATTACTGCTGATATGGAAGCTTTTAATGATAATTCAT AAGAGTGCCGTAACAACTGTGGTCAATCCGAAGTATGAGGGAAAATGAGTACTGCCCGTGCAAATCCCACAACAC TGAATGCAAAGTAGCAATTTCCATAGTCACAGTTAGGTAGCTTTAGGGCAATATTGCCATGGTTTTACTCATGTG CAGGGACTGACAAAAGACTTGAGACAGGATGGTTATTCTTGTCAGCTAAGGTCACATTGTGCCTTTTTGACCTTT TCTTCCTGGACTATTGAAATCAAGCTTATTGGATTAAGTGATATTTCTATAGCGATTGAAAGGGCAATAGTTAAA GTAATGAGCATGATGAGAGTTTCTGTTAATCATGTATTAAAACTGATTTTTAGCTTTACAAATATGTCAGTTTGC AGTTATGCAGAATCCAAAGTAAATGTCCTGCTAGCTAGTTAAGGATTGTTTTAAATCTGTTATTTTGCTATTTTGC CTGTTAGACATGACTGATGACATATCTGAAAGACAAGTATGTTGAGAGTTGCTGGTGTAAAATACGTTTGAAATA ATTTTAAGAGTTACTTAATGTTTGGTAACTTTTATGCCTTCACTTTACAAATTCAAGCCTTAGATAAAAGAACCG AATCTTTTAATGTATTTGTTTGCAATTTTGGGGTAAGACTTTTTTATGAGTACTTTTTCTTTGAAGTTTTAGCGG TCAATTTGCCTTTTTAATGAACATGTGAAGTTATACTGTGGCTATGCAACAGCTCTCACCTACGCGAGTCTTACT TTGAGTTAGTGCCATAACAGACCACTGTATGTTTACTTCTCACCATTTGAGTTGCCCATCTTGTTTCACACTAGT

# 3165/6881 FIGURE 2919B

MNLQPIFWIGLISSVCCVFAQTDENRCLKANAKSCGECIQAGPNCGWCTNSTFLQEGMPTSARCDDLEALKKKGC
PPDDIENPRGSKDIKKNKNVTNRSKGTAEKLKPEDITQIQPQQLVLRLRSGEPQTFTLKFKRAEDYPIDLYYLMD
LSYSMKDDLENVKSLGTDLMNEMRRITSDFRIGFGSFVEKTVMPYISTTPAKLRNPCTSEQNCTSPFSYKNVLSL
TNKGEVFNELVGKQRISGNLDSPEGGFDAIMQVAVCGSLIGWRNVTRLLVFSTDAGFHFAGDGKLGGIVLPNDGQ
CHLENNMYTMSHYYDYPSIAHLVQKLSENNIQTIFAVTEEFQPVYKELKNLIPKSAVGTLSANSSNVIQLIIDAY
NSLSSEVILENGKLSEGVTISYKSYCKNGVNGTGENGRKCSNISIGDEVQFEISITSNKCPKKDSDSFKIRPLGF
TEEVEVILQYICECECQSEGIPESPKCHEGNGTFECGACRCNEGRVGRHCECSTDEVNSEDMDAYCRKENSSEIC
SNNGECVCGQCVCRKRDNTNEIYSGKFCECDNFNCDRSNGLICGGNGVCKCRVCECNPNYTGSACDCSLDTSTCE
ASNGQICNGRGICECGVCKCTDPKFQGQTCEMCQTCLGVCAEHKECVQCRAFNKGEKKDTCTQECSYFNITKVES
RDKLPQPVQPDPVSHCKEKDVDDCWFYFTYSVNGNNEVMVHVVENPECPTGPDIIPIVAGVVAGIVLIGLALLLI
WKLLMIIHDRREFAKFEKEKMNAKWDTGENPIYKSAVTTVVNPKYEGK

#### 3167/6881 FIGURE 2921A

GCTTCAGTCCCGCGACCGAAGCAGGGCGCGCAGCAGCGCTGAGTGCCCCGGAACGTGCGTCGCGCCCCCAGTGTC CGTCGCGTCCGCCGCGCCCCGGGGGGATGGGGCGGCCAGACTGAGCGCCGCACCCGCCATCCAGACCCGCCGG  $\tt CTGCGTCTGCTGCTGCTGCTGCCGCTGCTAGGCAAAGTGGCATTGGGCCTCTACTTCTCGAGGGATGCT$ TACTGGGAGAAGCTGTATGTGGACCAGGCAGCCGGCACGCCCTTGCTGTACGTCCATGCCCTGCGGGACGCCCCT GAGGAGGTGCCCAGCTTCCGCCTGGGCCAGCATCTCTACGGCACGTACCGCACACGGCTGCATGAGAACAACTGG ATCTGCATCCAGGAGGACACCGGCCTCCTCTACCTTAACCGGAGCCTGGACCATAGCTCCTGGGAGAAGCTCAGT GTCCGCAACCGCGGCTTTCCCCTGCTCACCGTCTACCTCAAGGTCTTCCTGTCACCCACATCCCTTCGTGAGGGC GAGTGCCAGTGGCCAGGCTGTGCCCGCGTATACTTCTCCTTCTTCAACACCTCCTTTCCAGCCTGCAGCTCCCTC AAGCCCCGGGAGCTCTGCTTCCCAGAGACAAGGCCCTCCTTCCGCATTCGGGAGAACCGACCCCCAGGCACCTTC CACCAGTTCCGCCTGCCTGCCGTGCAGTTCTTGTGCCCCAACATCAGCGTGGCCTACAGGCTCCTGGAGGGTGAG GGTCTGCCCTTCCGCTGCGCCCCGGACAGCCTGGAGGTGAGCACGCGCTGGGCCCTGGACCGCGAGCAGCGGGAG AAGTACGAGCTGGTGGCCGTGTGCACCGTGCACGCCGGCGCGCGAGGAGGTGGTGATGGTGCCCTTCCCGGTG ACCGTGTACGACGACGACGACTCGGCGCCCACCTTCCCCGCGGGCGTCGACACCGCCAGCGCCGTGGTGGAGTTC AAGCGGAAGGACACCGTGGTGGCCACGCTGCGTGTCTTCGATGCAGACGTGGTACCTGCATCAGGGGAGCTG GTGAGGCGGTACACAAGCACGCTGCTCCCCGGGGACACCTGGGCCCAGCAGACCTTCCGGGTGGAACACTGGCCC AACGAGACCTCGGTCCAGGCCAACGGCAGCTTCGTGCGGGCGACCGTACATGACTATAGGCTGGTTCTCAACCGG AACCTCTCCATCTCGGAGAACCGCACCATGCAGCTGGCGGTGCTGGTCAATGACTCAGACTTCCAGGGCCCAGGA GCGGGCGTCCTCTTGCTCCACTTCAACGTGTCGGTGCTGCCGGTCAGCCTGCCCCAGTACCTACTCCCTC ATCAACGTCCAGTACAAGCTGCATTCCTCTGGTGCCAACTGCAGCACGCTAGGGGTGGTCACCTCAGCCGAGGAC ACCTCGGGGATCCTGTTTGTGAATGACACCAAGGCCCTGCGGGGGCCCAAGTGTGCCGAACTTCACTACATGGTG GTGGCCACCGACCAGCAGCCTCTAGGCAGGCCCAGGCCCAGCTGCTTGTAACAGTGGAGGGGTCATATGTGGCC GAGGAGGCGGGCTGCCCCTGTCCTGTGCAGTCAGCAAGAGACGGCTGGAGTGTGAGGAGTGTGGCGGCCTGGGC TCCCCAACAGGCAGGTGTGAGTGGAGGCAAGGAGTGGCAAAGGGATCACCAGGAACTTCTCCACCTGCTCTCCC AGCACCAAGACCTGCCCGACGGCCACTGCGATGTTGTGGAGACCCAAGACATCAACATTTGCCCTCAGGACTGC CTCCGGGGCAGCATTGTTGGGGGACACGAGCCTGGGGAGCCCCGGGGGATTAAAGCTGGCTATGGCACCTGCAAC TGCTTCCCTGAGGAGGAGAAGTGCTTCTGCGAGCCCGAAGACATCCAGGATCCACTGTGCGACGAGCTGTGCCGC ACGGTGATCGCAGCCGCTGTCCTCTTCTCCTTCATCGTCTCGGTGCTGCTGTCTGCCTTCTGCATCCACTGCTAC AGCTACTCCTCTCCGGTGCCCGCCGGCCCTCGCTGGACTCCATGGAGAACCAGGTCTCCGTGGATGCCTTCAAG ATCCTGGAGGATCCAAAGTGGGAATTCCCTCGGAAGAACTTGGTTCTTGGAAAAACTCTAGGAGAAGGCGAATTT GGAAAAGTGGTCAAGGCAACGGCCTTCCATCTGAAAGGCAGAGCAGGGTACACCACGGTGGCCGTGAAGATGCTG AAAGAGAACGCCTCCCCGAGTGAGCTGCGAGACCTGCTGTCAGAGTTCAACGTCCTGAAGCAGGTCAACCACCCA CATGTCATCAAATTGTATGGGGCCTGCAGCCAGGATGGCCCGCTCCTCCTCATCGTGGAGTACGCCAAATACGGC TCCCTGCGGGGCTTCCTCCGCGAGAGCCGCAAAGTGGGGCCTGGCTACCTGGGCAGTGGAGGCAGCCGCAACTCC AGCTCCCTGGACCACCCGGATGAGCGGGCCCTCACCATGGGCGACCTCATCTCATTTGCCTGGCAGATCTCACAG GGGATGCAGTATCTGGCCGAGATGAAGCTCGTTCATCGGGACTTGGCAGCCAGAAACATCCTGGTAGCTGAGGGG CGGAAGATGAAGATTTCGGATTTCGGCTTGTCCCGAGATGTTTATGAAGAGGATTCCTACGTGAAGAGGAGCCAG GGTCGGATTCCAGTTAAATGGATGGCAATTGAATCCCTTTTTGATCATATCTACACCACGCAAAGTGATGTATGG TCTTTTGGTGTCCTGCTGTGGGAGATCGTGACCCTAGGGGGAAACCCCTATCCTGGGATTCCTCCTGAGCGGCTC TTCAACCTTCTGAAGACCGGCCACCGGATGGAGAGGCCAGACAACTGCAGCGAGGAGATGTACCGCCTGATGCTG CAATGCTGGAAGCAGGAGCCGGACAAAAGGCCGGTGTTTGCGGACATCAGCAAAGACCTGGAGAAGATGATGGTT AAGAGGAGACTACTTGGACCTTGCGGCGTCCACTCCATCTGACTCCCTGATTTATGACGACGGCCTCTCAGAG  $\verb|CTCTATGGCATGTCAGACCCGAACTGGCCTGGAGAGAGTCCTGTACCACTCACGAGAGCTGATGGCACTAACACT|\\$ GGGTTTCCAAGATATCCAAATGATAGTGTATATGCTAACTGGATGCTTTCACCCTCAGCGGCAAAATTAATGGAC ACGTTTGATAGTTAACATTTCTTTGTGAAAGGTAATGGACTCACAAGGGGAAGAAACATGCTGAGAATGGAAAGT

#### 3168/6881 FIGURE 2921B

 $\verb|CTACCGGCCCTTTCTTTGTGAACGTCACATTGGCCGAGCCGTGTTCAGTTCCCAGGTGGCAGACTCGTTTTTGGT|\\$ AGTTTGTTTTAACTTCCAAGGTGGTTTTACTTCTGATAGCCGGTGATTTTCCCTCCTAGCAGACATGCCACACCG GGTAAGAGCTCTGAGTCTTAGTGGTTAAGCATTCCTTTCTCTTCAGTGCCCAGCAGCACCCAGTGTTGGTCTGTG TCCATCAGTGACCACCAACATTCTGTGTTCACATGTGTGGGTCCAACACTTACTACCTGGTGTATGAAATTGGAC GCAGTAGGAAAAATGCTGGCCCTGATGACCTGTCCTTATTCAGAATGAGAGACTGCGGGGGGGCCTGGGGGTAG TGTCAATGCCCCTCCAGGGCTGGAGGGGAAGAGGGGCCCCGAGGATGGGCCTGGGCTCAGCATTCGAGATCTTGA GAATGATTTTTTTTAAATCATGCAACCTTTCCTTAGGAAGACATTTGGTTTTCATCATGATTAAGATGATTCCTA GATTTAGCACAATGGAGAGATTCCATGCCATCTTTACTATGTGGATGGTGGTATCAGGGAAGAGGGCTCACAAGA CACATTTGTCCCCCGGGCCCACCACATCATCCTCACGTGTTCGGTACTGAGCAGCCACTACCCCTGATGAGAACA GTATGAAGAAAGGGGGCTGTTGGAGTCCCAGAATTGCTGACAGCAGAGGCTTTGCTGCTGTGAATCCCACCTGCC ACCAGCCTGCAGCACACCCCACAGCCAAGTAGAGGCGAAAGCAGTGGCTCATCCTACCTGTTAGGAGCAGGTAGG CAATGACAATGACCAAGGACTGCTACACCTCTGATTACAATTCTGATGTGAAAAAGATGGTGTTTTGGCTCTTATA GAGCCTGTGTGAAAGGCCCATGGATCAGCTCTTCCTGTGTTTGTAATTTAATGCTGCTACAAGATGTTTCTGTTT CCTCCAGTCTTGTGGGGGCAGCTTTTGGGAAGTCTCAGCAGCTCTTCTGGCTGTTGTCAGCACTGTAACTTCG CAGAAAAGAGTCGGATTACCAAAACACTGCCTGCTCTTCAGACTTAAAAGCACTGATAGGACTTAAAATAGTCTCA TTCAAATACTGTATTTTATATAGGCATTTCACAAAAACAGCAAAATTGTGGCATTTTGTGAGGCCAAGGCTTGGA TGCGTGTGTAATAGAGCCTTGTGGTGTGTGCGCACACCCCAGAGGGAGAGTTTGAAAAATGCTTATTGGACACG TAACCTGGCTCTAATTTGGGCTGTTTTTCAGATACACTGTGATAAGTTCTTTTACAAATATCTATAGACATGGTA AACTTTTGGTTTTCAGATATGCTTAATGATAGTCTTACTAAATGCAGAAATAAGAATAAACTTTCTCAAATTATT AAAAATGCCTACACAGTAAGTGTGAATTGCTGCAACAGGTTTGTTCTCAGGAGGGTAAGAACTCCAGGTCTAAAC AGCTGACCCAGTGATGGGGAATTTATCCTTGACCAATTTATCCTTGACCAATAACCTAATTGTCTATTCCTGAGT TATAAAAGTCCCCATCCTTATTAGCTCTACTGGAATTTTCATACACGTAAATGCAGAAGTTACTAAGTATTAAGT ATTACTGAGTATTAAGTAGTAATCTGTCAGTTATTAAAATTTGTAAAATCTATTTATGAAAGGTCATTAAACCAG 

# 3169/6881 FIGURE 2922

MKEDCLPSSHVPISDSKSIQKSELLGLLKTYNCYHEGKSFQLRHREEEGTLIIEGLLNIAWGLRRPIRLQMQDDR EQVHLPSTSWMPRRPSCPLKEPSPQNGNITAKGPSIQPVHKAESSTDSSGPLEEAEEAPQLMRTKSDASCMSQRR PKCRAPGEAQRIRRHRFSINGHFYNHKTSVFTPAYGSVTNVRVNSTMTTLQVLTLLLNKFRVEDGPSEFALYIVH ESGERTKLKDCEYPLISRILHGPCEKIARIFLMEADLGVEVPHEVAQYIKFEMPVLDSFVEKLKEEEEREIIKLT MKFQALRLTMLQRLEQLVEAK

## 3172/6881 FIGURE 2925

CACACTGCTCAGGGAAGAGCCTGCTACGGTGGACTGTGAGACTCAGTGCACTGTCCTCCCCAGCGACCCCACG  $\tt CTGGACCCCTGCCGGACCCTCCACCCTTCGGCCCCCAAGCTTCCCAGGGGCTTCCTTTGGACTGGACTGTCCCT$ GCTCATCCATTCTCCTGCCACCCCAGACCTCCTCAGCTCCAGGTTGCCACCTCCTCTCGCCAGAGTGATGAGGT CCCGGCTTCTGCTCTCCGTGGCCCATCTGCCCACAATTCGGGAGACCACGGAGGAGATGCTGCTTGGGGGTCCTG GACAGGAGCCCCCACCCTCTCCTAGCCTGGATGACTACGTGAGGTCTATATCTCGACTGGCACAGCCCACCTCTG TGCTGGACAAGGCCACGGCCCAGGGCCAACCCAGGCCACACGCCACAGGCCAGGCCAGGCCTGCCGGAAGGGCCGCC CTGCTGTGTCCCTGCGAGACATCACCGCACGTTTCAGTGGCCAGCAGCCCACACTGCCCATGGCTGATACTGTGG ACCCCCTGGACTGGCTTTTTGGGGAGTCCCAGGAAAAGCAGCCAAGCCAAGGACCTGCCAAGGAGGACTGGCC GTGAAGCCAGGATGCCTGGGCATTCCCTGGCAAGACCACCGCAGGATGGGCAGCAGAGCTCTGACCTAAGAAGCT GGACTTTTGGGCAGTCTGCCCAAGCCATGGCCTCCCGCCACCGCCCCCGCCCCAGCAGTGTCCTCAGAACACTCT ACTCGCACCTCCCGGTGATCCATGAACTCTGACCCCTCCCCAGTAAAGGCTTCTGTAGAGAGCATGCTGGGTCTG CATCTCCTCTCGTCTCCCATGGTGGTCACTGCCCCTGGCAGGTCTCTGAAAGGGAAATGCTTTTCTGCAGAGG CCCCTGCTTGGGCAGTTCACAGTGAGACCGACCCCCTCTGAATATGATAACAGCCTGTTTCACATGAGGAGATGT TCTCATGGGTAATATAGGGATAATTACTGGCACCTGCCTCCCAGGCCATTCTGACGTGTAACCGCATATAGGAGC CCACTGGCTGAGTAGCTACCATCATCGCTGGTGGGGAAACTGGTGGTAGGGGTGTGAGGGTAGTGGGGGTGTCAG CCCCCAGGTGTTTCAGAACAAGGCCTCGGGCACTCCCAAGTCTGCCTCTTGGCTCCCACCCTCAAAGCCCATGT TCTGTGAGGCCCAAGAGAACACATGGAGTCTTAGCAAATGCACTAATGTATTCCGGGGGGACTGTCACCTGGCACC ACTGGGGCACTCTGCTGGCTACAACTCATACGTCCTGTGGTGGCATTGGGAGAGTTCCCCCATGATGAGGGCCAA GATAGAATCTGTACCACTCAGTGCTACCATCCCCACCCCTACACCACTTCCACACAGGGGCCTCATGGCATGGTC AGGGTCCCAGCTGTGGGTGAGAGCAGGGCACTGTCCAGCTGTCCACTGGGGAAGTCAAGATGTCCTAAGGCCCAG GTCAGGGCATCTGGAGGTCTGAAGGACCCTAGTTCCTAGAGGCATCTGGCAGCAAGAAGGTGAGGCATCAGGGAAC CCAAGCTCACCTGGGCAGGTCTCTGCCACCTCCTTGCTCTGTGAGCTGTCAGGTTATTCTCTTTTTTTGT GGCTATTTTTAATTGCTTTGGATTTGTTAAATGTTTTCTGTCTTCTGTTAAGTGTGTTTTCTCTGGAGATAGAAT GTAAACCATATTAAAAGGAAAAAGTTTCAGACAAGCAATTACCCAGTTTCCTTATCTATAAAATGGGGACATCAG CAATGTTCTTCACACCCTGCAAGGGCTGGGAATCTGCGCATGTGAACTTGGAGCTGCATTTATGAGCACTGTAGA CAAATGTTTGTATCTGTCAC

GTCGTGGAAGCAGGACTGCGCCGCGTCTTCCTCAAGGTGGGGTTCGGGGGGCCCACCGAATCGCTGTCACGCCGGC AGGTTGAGAACAAAACATGCACCTGGAGTTTCCCCGGAGCCCTCTGCGTGGTTGAGCTTCGGTGGAATTTCGGG GCTCTTGGCTGCCAGCCGCGCTTGCCTGGTAGCAACAGAAACCAGTCCTGCTCGCCTCCGTGGACATTTCATTAC CATCCAGAAGTGTCTCCCACTGAAGGCATCCGTGGTTGTTTTTAAGCCACAAAAAAAGCCACACCCAAGATCACCT TGCCCTGGTCCTGTTGAGGACGTGCAGAACTTCCTCTGACTGCACGATTCATGATGGGGCCGCAGGTG TCCATTTCATCTACACTAGAGAGGGCAGGCAGAGTGGTGAGGCTTTTGTTGAACTTGGATCAGAAGATGATGTAA AAATGGCCCTGAAAAAAGCAGGGAAAGCATGGGACACCGGTACATTGAGGTGTTCAAGTCCCACAGAACCGAGA TGGATTGGGTGTTGAAGCACAGTGGTCCCAACAGTGCCGACAGCGCCAACGATGGCTTCGTGCGGCTTCGAGGAC TCCCATTTGGATGCACAAAGGAAGAAATTGTTCAGTTCTTCTCAGGGTTGGAAATTGTGCCAAACGGGATCACAT TGCCTGTGGACCCCGAAGGCAAGATTACAGGGGAAGCGTTCGTGCAGTTTGCCTCGCAGGAGTTAGCTGAGAAGG CTCTAGGGAAACACAAGGAGAGGATAGGGCACAGGTACATTGAGGTGTTTAAGAGCAGCCAGGAGGAAGTTAGGT CATACTCAGATCCCCCTCTGAAGTTCATGTCCGTGCAGCGGCCAGGGCCCTATGACCGGCCCGGGACTGCCAGGA GGTACATTGGCATCGTGAAGCAGGCAGGCCTGGAAAGGATGAGGCCTGGTGCCTACAGCACAGGCTACGGGGGCT ACGAGGAGTACAGTGGCCTCAGTGATGGCTACGGCTTCACCACCGACCTGTTCGGGAGAGACCTCAGCTACTGTC TCTCCGGAATGTATGACCACAGATACGGCGACAGTGAGTTCACAGTGCAGAGCACCACAGGCCACTGTGTCCACA TGAGGGGCCTGCCGTACAAAGCGACCGAGAACGACATTTACAACTTCTTCTCTCCTCTCAACCCTGTGAGAGTCC ATATTGAGATTGGCCCAGATGGAAGAGTGACGGGTGAAGCAGATGTTGAGTTTGCTACTCATGAAGAAGCTGTGG CAGCTATGTCCAAAGACAGGGCCAATATGCAGCACAGATATATAGAACTCTTCTTGAATTCAACAACAGGGGCCA GCAATGGGGCGTATAGCAGCCAGGTGATGCAAGGCATGGGGGTGTCTGCCCCAGGCCACTTACAGTGGCCTGG AGAGCCAGTCAGTGAGTGGCTGTTACGGGGCCGGCTACAGTGGGCAGAACAGCATGGGTGGCTATGACTAGTTTT GTTAGGAACATTTGAGTTACTTCAATCATTTTCACAGGCAGCCAACAAGCAATTAAGAGCAGTTATAATAGAGGA AGCTGGGGGACCCATTTTGCACCATGAGTTTGTGAAAAAATCTGGATTAAAAAAATTACCTCTTCAGTGTTTTCTCA TGCAAAATTTTCTTCTAGCATGTGATAATGAGTAAACTAAAACTATTTTCAGCTTTTCTCAATTAACATTTTGGT AGTATACTTCAGAGTGATGTTATCTAAGTTTAAGTAGTTTAAGTATGTTAAATGTGGATCTTTTACACCACATCA CAGTGAACACACTGGGGAGACGTGCTTTTTTGGAAAACTCAAAGGTGCTAGCTCCCTGATTCAAAGAAATATTTC TTCCTTTTGGGTGTATTTTGCTAAGTGAAACTTGTTAAATTTTTTTGTTAACTAAATTTTTTTCTTAAAATAAAGA CTTTTTCACAATGACTGGCACAGATTACTCAGCAAAAGATAGCAAAACGGGTGGTTGAAGATAATTCATTTTAAT CGTAATGTATTTTAGTGTGAATTTAAAAATTTCATACATCAAATCTATGATCTCCCTTATATTCTTATGATGAGG CTAAATAAAAGTCTAATAAAAATGTTAAATATGTGAATGGTGAAATGGTGACTAGCAGCACACATTCTGGGAAG CATCAAATAGACACCGGCCCCAGCCACCTGCAACTTATGTGCACTGTTGTAAACCATTCAGAATTTTCCTGCTA GGCCCTTGATGCTGGAGTCACATCTGTTGATAGCTGGAGAACTTTAGTTTCAAGTACTACATTGTGAAAGCAATT ATTTTGTTTCTAGTTTTTATAAAATGCTGATTTAAACTTTT

## 3174/6881 FIGURE 2927

 ${\tt MGNILTCRVHPSVSLEFDQQQGSVCPSESEIYEAGAEDRMAGAPMAAAVQPAEVTVEVGEDLHMHHVRDREMPEALEFNLSANPEASTIFQRNSQTDALEFNPSANPEANTIFQRNSQTDGETTLFFPPRERIKSLV}$ 

GCCGGTAACATTCCGGCCTACAGCACGTCCCTACCTCAGCTGAACCGCTGGGACCAACACGCCGTACCGCAGCCG GGATTACCTGGGCTCTGGACGAGAAGCGCCTCGTCCCTTAGCCACACCCCCGGGGAGCCAGGGGCATCTGGCAT  $\tt CTGGCTGTATGTGGCAAACAGGCCACGACCACAAACTGCCGGGACTTCACAATTGGCTTTGTAGTTTTGCT$ GAGGGACTGTCCAGGTTTGGAGAAGTCCTAGCCTATCACAGGGATACCTGGTTTGAACTGCTGACCTCATATCTT TACCGTGACCTCGGTGGGCCAGAGATGCAGGCAGCTGGCCATGAAGACGCACTTCCCCGAGGAAGAGAGACAGG CTCACCCGCTGCAGGGCAGTCCCACAGCCTGCCTGCAATGGAGCCTTCAAGAATACAAACACTTCTAGAACAAGT TATCAGGAACATGGCATGGTTGGGCCTTCTCTGAACGGGCCCCAGGGTAAGCCATCTGATAAGGGAGAAACATCT GCCAACACCCTCAGCCACAGCGTCACTGGGCTCAAGGGCCACAAAGGAGGCAAAAGCCTGCAGGGAAAAGAAATC CAAGACAGTAAAACAGAAGAACGAGTATTTGCCTGTAACTATCTGTGTCAGAGGTTCTCTGGTGAGGTGCCAGAG CACCCAGGACCAGCACAAGACACAGTCATACACTGAGATGGAGGACAAGGTTCCCTACAGGGACGAAGATGAG ACAACAGAGCGACAAACACAGGAAAGTGACTTCAGGCATCCATTAGGAGGGACAAGCAGTAGCCCTACTTATGGG TGGCAAGATGTCACCTTCATTCTGGCAAAGCTGATTGAAGAATGCAGCATTAGATGTGCAGCTATACAGACCTGC CAGATCAACAAGCCCTCGGGCAATGCCTATGATGCTGCTTCACTGGCTGCACAGTCACAGGGACCTCCCCAGAAC TGCTGTGCAAAGGGTCAACTTCCCAGACCCCCAGAGGCCAATGTCTTCATGGTGCTCCTGGTGGAGCCACCAGCT GCTCCCAGCCCGGCTGCCACACAGAGAGTACGGCAGCCTCACACTGCTGGTTATCCCAGAGGCTTGGAGCAGGGT TGGAGGGATGAAGCAGGCCTGGACTGCGTCCTTAGGAAGACAGAAGCCATCGTCGATATGGCCGTTCCCTTGTCC CCTCCCTCCTGCTCCTACAGCAAGCATACCAGGGCTGACTCCTCTCCACACCGCAGCATGGAGAATTCAGAGGGC AATAATAGCAACTGCTTGCTTGTAAAGTGCTTGGAGCTCAGAGGAGAAAAGGTGTCAGACAAGTGTAAAATGTTA CTACTGGCACAGGCCAGAGGATGGAATGGAAAATCCCAGCAGAAATTGGGAACTCAGAGGAAGCCATTTGTCAGC TCCTCTGAACAAATGGATACAGGAAAAGGGGCCTTCCTCTGGCAGCCAGGCACAGCCCAGACCACTGCTGCCCAC ACTCAGACCAATCTGCTGGTCTTGGACAAGGAGTTTTGTGAGCAGAAACTCATGCTGCTCCCTTGGGCACATG GAAATTGGAATCCTAAGGAGTCCTCACAAAGCCCCAGAGAAATCTGGCCATTCTCCAGGGGACCGAGCATCCCCC ATGGTGCTGCATGGGAGTCCCCAGAAGCTACCACCCCCAACCAGCTTTGGACACCCCTGCTCTTATTTTCTGCA TCCCCAGAACTACCTGCCCTAGTGCTGAGCTCATGGAAGTTCCTCAGGAAGCATCTTCACATGGATGTTGAAGAG AAAAAATCTCCAGGTCCCACGGGGTGCTGTGGGAGTCCAAAATCAGGACTCCAAAAGGCCTGTGA

AGTGCTCTTGGCCGGGAGGAGGCTGTGCTGCACCAGCACCTCTTGCTCCACATCTCCAGAGAGCCCAGGGCCCTG TGGCCGAGTGTGCCAGCCCAGTGTCATGGGGAGCTTCCATATCTCATGGCTCCTTGCTGGGCCAAGCCCTCCAG  $\texttt{AACCCCAAACCCCCAAAGACTGATGA} \underline{\textbf{ATG}} \texttt{CCAGAGTGGCCACCTTGCTTATCTGTGGCCCCGGCCCTGGTGATCA}$ CCATGGCAGCTGGGAAGGGAGCCCCGTTGAGCCCATCGGCTGAAAACAGATGGCGACTTAGCGAACCTGAGCTGG GGGATGTGGGCAGTGCGGAGCTGGCACTGTTGGTAGCCCCAGGCAAGCCCCGACCTGGCAAGCCGCTGCCCCCGA AGACACGTGGAGAGCAGAGGCAGAGCGCCTTCACGGAGCTGCCGAGGATGAAGGACCGGCAGGTGGATGCTCAGG CCCAGGAGAGGAGCACGATGACCCCACAGGCCAACCTGGTGCCCCACAGCTGACCCAGAACATCCCCAGAGGCC CAGCTGGCAGCAAAGTCTTCTCTGTGTGGCCCAGCGGAGCACGAAGTGAGCAAAGAAGCGCCTTTAGCAAACCAA CCAAGCGACCAGCAGAGAGGCCTGAGCTAACCTCAGTCTTCCCTGCAGGGGAATCTGCAGATGCCCTGGGGGAGC TGTGGAACTTGCAAGCATTGCCACAGAATGCTCCACTCTGTAGCACTTTTCTGGGTGCCCCTACACTGTGGCTGG CCTCCCTGGGCTTGTCCACCCAGAACTGGTGTGCAAAGTGCAACCTGTCCTTTCGCCTAACGTCCGACCTGGTCT TTCACATGCGATCCCACCACAAAAAGGAGCATGCGGGGCCTGACCCACATTCTCAGAAGCGGAGAAAAAGGGCCCC AGGTGACCGCAGAATGACCTGCTGGGTGCAGCCAGCCTTTGGCAGAGGGGGGCCTCCCTGGGCCTGCGTTGAG GGGGCTGTCATGGTCCTTTGCAGAGCTGCTGCTTTTGGCATTCATAGATAAACAGCTCAGGCATAATTTGAAAAA GCCACACCTGCATGATGTGTTTTGAAGGAAATGAAGTCCTGAAATAAAGTGATGGGCTTTGCAAATCCAGGGTAG AGGCCCTAACAGGCACAGAGAGCAGGGGCAACTCCTGGCACACATCATGGGCTTTGGAGGCACACAAGCCTGGAT TCGAATCTGGGCTCTTTCACATACTAGCTGTGACCCTGGACAAAGAGCTTTAACCTGCTGAGTCCCCATTTTCTC ATCTGTGAAATGGAGATGATAACACTGTGTCTTAGGTTGGCATTCAGGTCACATGAAAGGTGTGTGGAAAGTGGC CAGCATTCTGCCTGCAGACCCTGAGCACTGAGTCAACAAGGTTTGTGATGATGTCTGTACTAGTTAGCTATTGTT ATTAACAAGATCTCCATGGCAGACAAGCTAAAGCATCTGCCTAAGTCGTGAGTCTGTGGGTTGGCTCAGGTTAAG GTCCACACACACACACCAGATAATCTTCTGAAAGTGTAACTCAGATGATGCCTCCAACCCTGTGGCTGCCCTTC ACACTTACAGGCCTAACCCCAGCAGGACCTGCCAGCTGCTTCATGAACAAGTCCCTGCCTCATGTTAATTGCAAG CACTCATTTCACTCTCCCTGTGTGCCAGGCAATAGCATAAGCACTGGAAGAATACAGATGTTATAGTGAGTCCTA CAATAGCCCTGGAAGGCAAGAGCTGTTTCCTTTCCATTTCTACAATGAGTCAATTGCAGATGATGCTATAACACT TCCAGTGTTTCTGACACTTCCCTGAAGCTATACCTGCTACCTTCATGGGCCGAGCTTGCCCTTATGAGGCCCACA GGTGGCAGTGGCAGAGGGGACCCCGCTATACCACCTCGCTGCTGCTCCACTGTCTGCTCCCGTGTTCTGACCAC ATGGTTCCACAGGGCTTCTTCTCCCAGGTCAGCTCCTTAGAGAGGTCTCCCAGATTCCCCGTAAAGCAGCCCTGC 

MPEWPPCLSVAPALVITMAAGKGAPLSPSAENRWRLSEPELGRGCKPVLLEKTNRLGPEAAVGRAGRDVGSAELA LLVAPGKPRPGKPLPPKTRGEQRQSAFTELPRMKDRQVDAQAQEREHDDPTGQPGAPQLTQNIPRGPAGSKVFSV WPSGARSEQRSAFSKPTKRPAERPELTSVFPAGESADALGELSGLLNTTDLACWGRLSTPKLLVGDLWNLQALPQ NAPLCSTFLGAPTLWLEHTQAQVPPPSSSSTTSWALLPPTLTSLGLSTQNWCAKCNLSFRLTSDLVFHMRSHHKK EHAGPDPHSQKRREEALACPVCQEHFRERHHLSRHMTSHS

#### 3180/6881 FIGURE 2933

GGCCTGCTCACTCCTCAGCTGCAGGAGCCAGACGTGTGGAGTCCCAGCAGAGGCCAACCTGTGTCTCTTCATCTC AAGAGCAGCTCCCACTTCAACCCAGACCCTGATGCAGAGACCCTCTACAAAGCCATGAAGGGGATCGGGACCAAC GAGCAGGCTATCATCGATGTGCTCACCAAGAGAAGCAACACGCAGCGGCAGCAGATCGCCAAGTCCTTCAAGGCT CAGTTCGGCAAGGACCTCACTGAGACCTTGAAGTCTGAGCTCAGTGGCAAGTTTGAGAGGCTCATTGTGGCCCTT ATGTACCCGCCATACAGATACGAAGCCAAGGAGCTGCATGACGCCATGAAGGGCTTAGGAACCAAGGAGGGTGTC ATCATTGAGATCCTGGCCTCTCGGACCAAGAACCAGCTGCGGGAGATAATGAAGGCGTATGAGGAAGACTATGGG AGCAGGGATGATGTGAGCAGCTTTGTGGACCCAGGACTGGCCCTCCAAGACGCACAGGATCTGTATGCGGCAGGC GTGTTTGAAGAGTATGAGAAAATTGCCAACAAGAGCATTGAGGACAGCATCAAGAGTGAGACCCATGGCTCACTG GAGGAGGCCATGCTCACTGTGGTGAAATGCACCCAAAACCTCCACAGCTACTTTGCAGAGAGACTCTACTATGCC ATGAAGGGAGCAGGGACGCGTGATGGGACCCTGATAAGAAACATCGTTTCAAGGAGCGAGATTGACTTAAATCTT ATCAAATGTCACTTCAAGAAGATGTACGGCAAGACCCTCAGCAGCATGATCATGGAAGACACCAGCGGTGACTAC AAGAACGCCCTGCTGAGCCTGGTGGGCAGCGACCCCTGAGGCACAGAAGAACAAGAGCAAAGACCATGAAGCCAG AGTCTCCAGGACTCCTCACCTCACCTCGGCCATGGACGCAGGTTGGGTGTGAGGGGGGGTCCCAGCCTTTCGGTCT GCATGAAGGGCTTGGGGACTTGTGGATCATTCCTTCCTCCCTGCAGGAGCTTCCCAAGCTGGTCACAGAGTCTCC TGGGCACAGGTTATACAGACCCCAGCCCCATTCCCATCTACTGAAACAGGGTCTCCACAAGAGGGGCCAGGGAAT AAAAATGTTAGGCTCTAAATGGACGAAAAATTCTCTCGCCATCTTAATAACAAAATAAACTACAAAATTCCTGACC CAAGGACACTGTGTTATAAGAGGCGTGGGCTCCCCTGGTGGCTGACCAGGTCAGCTGCCCTGGCCTTGCACCCCT CTGCATGCAGCACAGAAGGGTGTGACCATGCCCTCAGCACCACTCTTGTCCCCACTGAACGGCAACTGAGACTGG GTACCTGGAGATTCTGAAGTGCCTTTGCTGTGGTTTTCAAAATAATAAAGATTTGTATTCAACTC

#### 3181/6881 FIGURE 2934

GAATTTCCGTTTCCGGCGGTGTCCAAGCGGACCTAAGGAGTCGCAGTTGTGAACAGGTTAGAGTTACTTGTTATT ANAGAAGTGGCATCTGCAGGATCTCCAGCTAGGAGACTAAGAAAATGCCCAGAAGAGAAATGCCAATGCTTTTG CAGTTCAGTCTGCTGTGGATGTCTCGATCCTTTCACAGGACTCTGGATTTGAAGACACAAAAGCATCATATTC CAGTGGTTGATGGAACTCCACTAGAGCCGCCACCAATACCGGTAGTGGTGACGGGGCCTCCAAAGTTGGAAAGAG CACTTTGATATAATGCCTCATTCGGAACTTCACCTGGCAGAAGTTCACCGAGATCAGAGGCCCTGTGACGATCGT AGCAGATCTGGTACTGATGCTTATAGATGCCAGCTTTGGGTTTGAAATGGAAATGTTTGAGTTTCTAAACATCTG GAAGACAAAGAAGCGATTAAAACACAGGTTCTGGACAGAAGTTTACCAGGTTGCCAAACTGTTCTACCTTTCTGG AATGGTGCATGGAGAATATCAAAACCAAGAAATCCACAATCTGGGCCATTTTATTACAGTTATGAAGTTTAGGCC TCTCATGGCAAACTTTTCACCCTTATATCCTGGCAGACAGGATGGAAGATTTGACAAACCCGGAGGATATCCAAA CAAACATCAAATGTGACCGGCAGGTGTCACTTTATGGTTATTTAAGAGGAGCACACTTCAAAGATAAAAGCCAAA TTCACATGCCAGGACAAGGTGGGGCTCACCCATGAGCTGGTCCAGAGTCTCATCTCCACCTACTCCACCATTGAT GCCAAGATGGCTTCAAGTCGAGTGACGCTGCTTTCCAATTCCAAACCACTTGGGTCAGAGGCTATAGATAATCAA GGGTAAGTCTGCTTTTTTTCTATTTTTAATAAAAAGATATATTACAGAA

TGCTCACTCCTCAGCTGCAGGAGCCAGACGTGTGGAGTCCCAGCAGAGGCCAACCTGTGTCTCTTCATCTCCGTG AGANAGGTGCCCCCGAAGTGAAAGAGATGGCCTGGTGGAAAGCCTGGATTGAACAGGAGGGTGTCACAGTGAAGA GCAGCTCCCACTTCAACCCAGACCCTGATGCAGAGACCCTCTACAAAGCCATGAAGGGGATCGGTGTCGGGTCCC AACTGCTCAGCCACCAAGCAGCTGCCTTCGCCTTCCCCTCCTCCGCCCTCACCAGTGTGTCACCCTGGGGGCAGC AGGGTCACTTGTGCTGTAACCCTGCAGGGACCAACGAGCAGGCTATCATCGATGTGCTCACCAAGAGAAGCAACA CGCAGCGGCAGCAGATCGCCAAGTCCTTCAAGGCTCAGTTCGGCAAGGACCTCACTGAGACCTTGAAGTCTGAGC TCAGTGGCAAGTTTGAGAGGCTCATTGTGGCCCTTATGTACCCGCCATACAGATACGAAGCCAAGGAGCTGCATG ACGCCATGAAGGGCTTAGGAACCAAGGAGGGTGTCATCATTGAGATCCTGGCCTCTCGGACCAAGAACCAGCTGC GGGAGATAATGAAGGCGTATGAGGAAGACTATGGGTCCAGCCTGGAGGAGGACATCCAAGCAGACACAAGTGGCT ACCTGGAGAGGATCCTGGTGTGCCTCCTGCAGGGCAGCAGGGATGATGTGAGCAGCTTTGTGGACCCGGCACTGG CCCTCCAAGACGCACAGGATCTGTATGCGGCAGGCGAGAATATTCGTGGGACTGATGAGATGAAATTCATCACCA TCCTGTGCACGCGCAGTGCCACTCACCTGCTGAGAGTGTTTGAAGAGTATGAGAAAATTGCCAACAAGAGCATTG AGGACAGCATCAAGAGTGAGACCCATGGCTCACTGGAGGAGGCCATGCTCACTGTGGTGAAATGCACCCAAAACC TCCACAGCTACTTTGCAGAGAGACTCTACTATGCCATGAAGGGAGCAGGGACGCGTGATGGGACCCTGATAAGAA ACATCGTTTCAAGGAGCGAGATTGACTTAAATCTTATCAAATGTCACTTCAAGAAGATGTACGGCAAGACCCTCA GCAGCATGATCATGGAAGACACCAGCGGTGACTACAAGAACGCCCTGCTGAGCCTGGTGGGCAGCGACCCCTGAG GGTTGGGTGTGAGGGGGGTCCCAGCCTTTCGGTCTTCTATTTCCCTATTTCCAGTGCTTTCCAGCCGGGTTTCTG ACCCAGAGGGTGGAACCGGCCTGGACTCCTCTCCCAACTTCCTCCAGGTCATTTCCCAGTGTGAGCACAATGCC CTGCAGGAGCTTCCCAAGCTGGTCACAGAGTCTCCTGGGCACAGGTTATACAGACCCCAGCCCCATTCCCATCTA CTGAAACAGGGTCTCCACAAGAGGGGCCAGGGAATATGGGTTTTTAACAAGCGTCTTACAAAACACTTCTCTATC ATGCAGCCGGAGAGCTGGCTGGGAGCCCTTTTGTTTTAGAACACACCTTCAGCAGCTGAGAAACGAACACGA ATCCATCCCAACCGAGATGCCATTAACATTCATCTAAAAATGTTAGGCTCTAAATGGACGAAAAATTCTCTCGCC ATCTTAATAACAAAATAAACTACAAATTCCTGACCCAAGGACACTGTGTTATAAGAGGCGTGGGCTCCCCTGGTG CACTCTTGTCCCCACTGAACGGCAACTGAGACTGGGTACCTGGAGATTCTGAAGTGCCTTTGCTGTGGTTTTCAA AATAATAAAGATTTGTATTCAACTC

MPKARQSPGARGRQAGVALPWAGLHPHTQVSGLLTPQLQEPDVWSPSRGQPVSLHLPGKGAPEVKEMAWWKSWIE QEGVTVKSSSHFNPDPDAETLYQAMKGIGVGSQLLSHQAAAFAFPSSALTSVSPWGQQGHLCCNPAGTNEQAIID VLTKRSNTQRQQIAKSFKAQFGKDLTETLKSELSGKFERLIVALMYPPYRYEAKELHDAMKGLGTKEGVIIEILA SRTKNQLREIMKAYEEDYGSSLEEDIQADTSGYLERILVCLLQGSRDDVSSFVDPGLALQDAQDLYAAGEKIRGT DEMKFITILCTRSATHLLRVFEEYEKIANKSIEDSIKSETHGSLEEAMLTVVKCTQNLHSYFAERLYYAMKGAGT RDGTLIRNIVSRSEIDLNLIKCHFKKMYGKTLSSMIMEDTSGDYKNALLSLVGSDP

GCTAATACTGAAATTGTCAGGTCGGTGTAACTGTGACAGTCCGGAAGCAATGGAGGCTTCAGTGAGCAGGACCAG GGTAATCCCAGAACAAAAGAGAGCAGTTTTATTTATTTTTTCAAGAGAATTAAATTGTTTATTGATTACACATG ATAATGGATGATACACAAGCTTCATTCCCATCTATAATTTAATCTGGTACCATTATTCAATTAGATATGTTACAT AGGATGTGCCAACAATTACTTTTATAACCAATAATTCCATGATTTTGCTTGGGTAATCCCTTTTAATGGTGACTG AAATCATGACTGACCGAGTCAGTGGCTAGAAAAGGGGCTTTGCCTTTGTAACTTTTGATGACCATGACTCCGTCG ATAAGATTGTCATTCAGAAATACCATACTGTGAATGACCACAACTGTGAAGTTAGGAAAGCCCTGTCAAAGCAAG AGATGGCTAGTGCTTCATCCAGCCAAAGAGGTCGAAGTGGTTCTGGAAACTTTGGTGGTGGTCGTGGAGGTGGTT TCAGTGGGAATGACAACTTTGGTATTGGAGGAAACTTCAGTGGTCTTGGTGGCTGTGGTGGTGGTG GTGGATATGGTGGCAGTGGGGATGGCTGTAATGGATTTGGTAATGATGGAAGCAATTTTGGAGGTGGTGGAAGCT ACAATGATTTTGGCAATTACAACAATGAGTCTTCAAATTTTGGACCCATGAAGGGAGGAAATTTTGGAGGCAGAA GCTCTGGCCCCTGTGGCAATGGAGGCCTATACTTTGCAAAACCATGAAACCAAGGTGGCTATTGGCGGTTCCAGC ACAGGGAATCTACAGGTTACGACAGATTTGTGAACTCAGCCAAGCACAGTGGTGGCAGGGCCTAGCTACAAA GAAGACATGTTTTAGACAAATACTCATGTGTATGGGCAAAAAACTCGAGGACTGTATTTGTGACTAACTGTATAA GTGTAAAGTTAGTTTACTCTGAAGCTATCTTGGTAAATTTCCCCAACAGTGTGAAGTTAGAATTCCTTCAGGGTG ATGCCAAGTTCTATTTGGAATTTATATACAACCTGCTTGGGTGGAGAAGCCATTGTCTTCAGAAACCTTTGGTGT AGTTGAACTGATAGTTACTGTTGTGACCTGAAG

# FIGURE 2938

 ${\tt MASASSSQRGRSGSGNFGGGRGGGFSGNDNFGIGGNFSGLGGFGGSRGGGGYGGSGDGCNGFGNDGSNFGGGGSYNDFGNYNNESSNFGPMKGGNFGGRSSGPCGNGGLYFAKP}$ 

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#### 3186/6881 FIGURE 2939

GTCTGGGTGGGGCCTGGGAGCCACAGGAGATGCCCAAAGCCAGGCAGAGCCCGGGGGGCGAGGGGACGCAGGCAG GTGTGGCGCTGCCCTGGGCGGGCTTGCACCCCACACCCAAGTGAGCGGCCTGCTCACTCCTCAGCTGCAGGAGC CAGACGTGTGGAGTCCCAGCAGAGGCCAACCTGTGTCTCTTCATCTCCCTGGGAAAGGTGCCCCCGAGGTGAAAG AGATGCCCTGGTGGAAATCCTGGATTGAACAGGAGGGTGTCACAGTGAAGAGCAGCTCCCACTTCAACCCAGACC CTGATGCAGAGACCCTCTACCAAGCCATGAAGGGGATCGGGACCAACGAGCAGGCTATCATCGATGTGCTCACCA AGAGAAGCAACACGCAGCGGCAGCAGATCGCCAAGTCCTTCAAGGCTCAGTTCGGCAAGGACCTCACTGAGACCT TGAAGTCTGAGCTCAGTGGCAAGTTTGAGAGGCTCATTGTGGCCCTTATGTACCCGCCATACAGATACGAAGCCA AGGAGCTGCATGACGCCATGAAGGGCTTAGGAACCAAGGAGGGTGTCATCATTGAGATCCTGGCCTCTCGGACCA AGAACCAGCTGCGGGAGATAATGAAGGCGTATGAGGAAGACTATGGGTCCAGCCTGGAGGAGGACATCCAAGCAG ACACAAGTGGCTACCTGGAGAGGATCCTGGTGTGCCTCCTGCAGGGCAGCAGGGATGATGTGAGCAGCTTTGTGG ACCCAGGACTGGCCCTCCAAGACGCACAGGATCTGTATGCGGCAGGCGAGAAGATTCGTGGGACTGATGAGATGA AATTCATCACCATCCTGTGCACGCGCAGTGCCACTCACCTGCTGAGAGTGTTTGAAGAGTATGAGAAAATTGCCA ACAAGAGCATTGAGGACAGCATCAAGAGTGAGACCCATGGCTCACTGGAGGAGGCCATGCTCACTGTGGTGAAAT GCACCCAAAACCTCCACAGCTACTTTGCAGAGAGACTCTACTATGCCATGAAGGGAGCAGGGACGCGTGATGGGA CCCTGATAAGAACATCGTTTCAAGGAGCGAGATTGACTTAAATCTTATCAAATGTCACTTCAAGAAGATGTACG GCAAGACCCTCAGCAGCATGATCATGGAAGACACCAGCGGCGACTACAAGAACGCCCTGCTGAGCCTGGTGGGCA GCCATGGACGCAGGTTGGGTGTGAGGGGGGTCCCAGCCTTTCAGTCTTCTATTTCCCTATTTCCAGTGCTTTCCA GCCGGGTTTCTGACCCAGAGGGTGGAACCGGCCTGGACTCCTCTTCCCAACTTCCTCCAGGTCATTTCCCAGTGT ATTCCTTCCTCCCTGCAGGAGCTTCCCAAGCTGGTCACAGAGTCTCCTGGGCACAGGTTATACAGACCCCAGCCC CATTCCCATCTACTGAAACAGGGTCTCCACAAGAGGGGCCAGGGAATATGGGTTTTTAACAAGCGTCTTACAAAA CACTTCTCTATCATGCAGCCGGAGAGCTGGCTGGGAGCCCTTTTGTTTTAGAACACACATCCTTCAGCAGCTGAG AAACGAACACGAATCCATCCCAACCGAGATGCCATTAACATTCATCTAAAAATGTTAGGCTCTAAATGGACGAAA **AATTCTCTCGCCATCTTAATAACAAAATAAACTACAAATTCCTGACCCAAGGACACTGTGTTATAAGAGGCGTGG** TGCCCTCAGCACCACTCTTGTCCCCACTGAACGGCAACTGAGACTGGGTACCTGGAGATTCTGAAGTGCCTTTGC TGTGGTTTTCAAAATAATAAAGATTTGTATTC

MAWWKSWIEQEGVTVKSSSHFNPDPDAETLYKAMKGIGTNEQAIIDVLTKRSNTQRQQIAKSFKAQFGKDLTETL KSELSGKFERLIVALMYPPYRYEAKELHDAMKGLGTKEGVIIEILASRTKNQLREIMKAYEEDYGSSLEEDIQAD TSGYLERILVCLLQGSRDDVSSFVDPGLALQDAQDLYAAGEKIRGTDEMKFITILCTRSATHLLRVFEEYEKIAN KSIEDSIKSETHGSLEEAMLTVVKCTQNLHSYFAERLYYAMKGAGTRDGTLIRNIVSRSEIDLNLIKCHFKKMYG KTLSSMIMEDTSGDYKNALLSLVGSDP

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## 3188/6881 FIGURE 2941

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GAATTTCCGTTTCCGGCGGTGTCCAAGCGGACCTAAGGAGTCGCAGTTGTGAACAGGTTAGAGTTACTTGTTATT AAAAGAAGTGGCATCTGCAGGATCTCCAGCTAGGAGACTAAGAAAATGCCCAGAAGAGAAATGCCAATGCTTTTG CAGTTCAGTCTGCTGTGTGGATGTCTCGATCCTTTCACAGGACTCTGGATTTGAAGACACAAAAGCATCATATTC CAGTGGTTGATGGAACTCCACTAGAGCCGCCACCAATACCGGTAGTGGTGACGGGGCCTCCAAAGTTGGAAAGAG CACTTTGATATAATGCCTCATTCGGAACTTCACCTGGCAGAAGTTCACCGAGATCAGAGGCCCTGTGACGATCGT AGCAGATCTGGTACTGATGCTTATAGATGCCAGCTTTGGGTTTGAAATGGAAATGTTTGAGTTTCTAAACATCTG GAAGACAAAGAAGCGATTAAAACACAGGTTCTGGACAGAAGTTTACCAGGTTGCCAAACTGTTCTACCTTTCTGG ANTGGTGCATGGAGAATATCAAAACCAAGAAATCCACAATCTGGGCCATTTTATTACAGTTATGAAGTTTAGGCC TCTCATGGCAAACTTTTCACCCTTATATCCTGGCAGACAGGATGGAAGATTTGACAAACCCGGAGGATATCCAAA CAAACATCAAATGTGACCGGCAGGTGTCACTTTATGGTTATTTAAGAGGAGCACACTTCAAAGATAAAAGCCAAA TTCACATGCCAGGACAAGGTGGGGCTCACCCATGAGCTGGTCCAGAGTCTCATCTCCACCTACTCCACCATTGAT GCCAAGATGGCTTCAAGTCGAGTGACGCTGCTTTCCAATTCCAAACCACTTGGGTCAGAGGCTATAGATAATCAA GGGTAAGTCTGCTTTTTTTCTATTTTTAATAAAAAGATATATTACAGAA

CGTGTGCACCCTAGCGTCAGCCTCGAGTTTGACCAGCAACAGGGGTCGGTGTGCCCTCTGAATCTGAGATCTAT
GAGGCAGTAGCTGGGGACAGGATGGCAGGAGCGCCCATGGCTGCTGCTGCAGCCTGCTGAGGTGACTGTTGAA
GTTGGTGAGGACCTCCACATGCACCACGTTCGTGACCGGGAGATGCCTGAAGCTTTGGAGTTTAACCTTTCTGCC
AATCCAGAGGCAAGCACAATATTCCAGAGGAACTCTCAAACAGATGCTTTGGAGTTTAACCCTTCTGCCAATCCA
GAGGCAAGCACAATATTCCAGAGGAACTCTCAAACAGATGGTGAGACGACATTGTTTTTTCCGCCAAGAGAAAGA
ATAAAAGCTCTTGTT<u>TGA</u>TCAGGTT

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# 3190/6881 FIGURE 2943

 ${\tt MAGAPMAAAVQPAEVTVEVGEDLHMHHVRDREMPEALEFNLSANPEASTIFQRNSQTDALEFNPSANPEASTIFQRNSQTDGETTLFFPPRERIKALV}$ 

ATCGGGCAGCCGAGAGAGTTCTGGCATCTCAGGTCCCAGGTTCCAGCTTCCAACCTGCCACCTGCTCACCGTGCAG CCTTGGTGCCTGCTTCCTCACCCCACCCCAGCTGGAGGGCGTGAGCGCACAGTGCTTCCTCCCTGCTTGCG TCCTCTGGGCGGATGAAGGCTCCCTTGAGGGGCGGCCTGGCTCTGGGGACAGGCCAGCTCCCACGAAGCTGCAG GAAGGGCCCACCTCCCGGGGGGGGCCTGCAATGCGCAGTGGGGTGGGGCTCCGAGGAGGTCACCAGGGACAGC CAAGGAGACCCGGCGGCCCGGCCTGCCCGCGCACAGGACCTCTTCCCTGGACGGGCGGCCGTGGCGGTGCTC TCCAGAACAGCCCCACGGGGCCGGGGAGCCGGTGCAGCCCTGGGAAGAAGGTGCAGACCCTGCCCAGTTGGAAG TCCTCCGGCGGGAACTGGCTTATGAACGGGCTGTCCTCCCTGCGGGACACCGCCGGGCCTCGTCGGGAGACCGG  $\tt CTCAAGGACTCGGGCTCCGTGCAGAGACTCTCCACCTACGACAATGTGCCCGGGCCTGGTCCCCGGCATA$ ACGGCCTGCCGCGCCAGCTCGTCTGCCCGCAGTTCCCTGCACACCGACTGGGCCCTGGAGCCCTCCCCGCTC  $\tt AGCGAGCCCAGCGGGACAGCCCCACCCGGGAACACGCGCGCCCCTCCGAGGCCTTACAGGGGCTGGTCACT$ GAGCTCAGGGCCGAGCTGTGCCGCCAGCGGACTGAGTACGAGAGGGGGTGTGAAAAGAATCGAAGAAGGGAGTGCT GACCTGAGAAAACGAATGTCCCGGTTAGAAGAAGAACTGGACCAGGAAAAGAAAAAAATACATCATGCTGGAAATA TTTTTTCGACCCTAGGAAGCTTGACTGTTGGGGCAAAAGGTGCCAGGGCCCCAAAGTAAAAGGAATGGCAGAGC TCACTTCTGTACCACGTCTGCTGGTCTCCAGCCTTGTATGGAGTTAGAAGCGTCTGTATCTCTGGAGCAGCCAGG CGCTCTGGAGCCAGCTGGAGAGAGAGAGATCCTGATACCTCTGTGGGGACTGTGGGGACTTTTGGGACCCCACAC ACTCCAGGTGGGATCAGATGCTGCTCCAACCATGCAGTTCCTGGTGAGGGTCAGAAGGGGACGGTACCAAGAGCA GCGCTTAGCCCTTACCCAGGAAATATCCTTCATGGCCACAGAAATGGAGGGCGCCCAGGATCCAGGCAGCCACCG 

MGQPREFWHLRSQVPVPTCHLLTVQPWCLLPHPTPAGGRERRHSASSLLAALCLRKAVLRPHPAVLPGVGGCVVL SSGRMKAPLRGGLALGTGPAPTKLQLLHDWQSEPGPSGWQQGPSPPLFPAGTSLVQHLMTVLIRKHSQLFTAPVP EGPTSPRGGLQCAVGWGSEEVTRDSQGEPGGPGLPAHRTSSLDGAAVAVLSRTAPTGPGSRCSPGKKVQTLPSWK SSFRQPRSLSGSPKGGGSSLEVPIISSGGNWLMNGLSSLRGHRRASSGDRLKDSGSVQRLSTYDNVPAPGLVPGI PSVASMAWSGASSSESSVGGSLSSCTACRASDSSARSSLHTDWALEPSPLPSSSEDPKSLDLDHSMDEAGAGASN SEPSEPDSPTREHARRSEALQGLVTELRAELCRQRTEYERSVKRIEEGSADLRKRMSRLEEELDQEKKKYIMLEI KLRNSERAREDAERRNQLLQREMEEFFSTLGSLTVGAKGARAPK

AACAGCATGTCCCTCGGCCAGCGGGGGGCCTCTTAGCGCGGGGGGGCTGCTCTGGGCGCGCCCCGGGCGAAG TGCGCCCAGTCTCCGGCCCCCGGCCCCCGGCCCCGACTTCCCGGCCGCCCCTGAGCCCAGCAGCCGCGGGTC CTCCGCGGCCCACCTGAGGCACAGGGGAGTCTGCTCGGCCAGGACAGCCTCCCCGAAGTCCCGCTGCCCTCGCCT CCGGCGGCAGAGGCGCCTGGTGCTTATCGTGTGCGTGGCGCTGTTACTGGACAACATGCTGTACATGGTCAT GGAGCCCACCCTGCCGCTGCCCACTCCGGCCAATGCCAGCGCCTACACGGCCAACACCTCGGCGTCCCCGACAGC TGCGTGGCCAGCGGGCTCAGCCCTTCGGCCCCGCTACCCTACGGAGAGCGAAGACGTGAAGATCGGGGTGCTGTT TGCTTCCAAGGCTATCCTGCAGCTGCTAGTGAACCCCTTGAGCGGGCCCTTCATCGACCGCATGAGCTACGACGT GCCGCTGCTGATCGGCCTGGGCGTCATGTTCGCCTCTACAGTCCTGTTCGCCTTCGCCGAGGACTACGCCACGCT GTTCGCGGCGCGCAGCCTGCAGGGCCTGGGCTCAGCCTTCGCCGACACGTCTGGCATAGCCATGATCGCCGATAA GTACCCGGAGGAGCCGGAGCGCAGTCGTGCACTGGGCGTGGCGTTCATTAGCTTCGGAAGCCTAGTGGC CCCGCCCTTCGGGGGCATCCTCTATGAGTTCGCCGGCAAGCGCGTGCCCTTCTTGGTGCTAGCTGCCGTGTCGCT  $\tt CTTTGACGCGCTGTTGCTGCCGGCGGCCAAACCCTTCTCGGCGGCTGCACGGGCCCAACCTGCCAGT$ GGGCACTCCCATCCACCGCCTCATGCTAGACCCCTACATTGCCGTGGTGGCCGGCGCGCTCACCACCTGTAACAT TCCCCTCGCCTTCCTCGAACCCACCATTGCCACGTGGATGAAGCATACGATGGCGGCTTCCGAGTGGGAGATGGG ACACCTGCAGTGGCTGTACGGCGCGCTTGGGCTGGCTGTGATCGGCGCCAGCTCGTGCATCGTGCCCGCCTGCCG CTCCTTCGCGCCGCTAGTGGTCTCACTATGCGGCCTCTGTTTTGGCATAGCCCTAGTCGACACAGCACTGCTGCC CACGCTCGCCTTCCTGGTGGACGTGCGCCATGTCTCAGTCTATGGCAGCGTCTACGCCCATCGCCGACATCTCCTA TTCGGTGGCCTACGCGCTCGGGCCCATAGTGGCAGGCCACATTGTGCACTCGCTGGGCTTTGAGCAGCTCAGCCT TGGCATGGGACTGGCCAACCTGCTCTATGCTCCCGTCTTGCTGCTCCCGCAACGTGGGCCTCCTGACGCGCTC TGTGTCTGGCCAGGCCGAGCCTCGCAGCCCGCCTTTTGATGAGTGCGAGGACGACTACAACTACTA GCCCACTGGCCAGCTCTGGCTCAGGGCCCACCTCCTCCAGCGAGTACCCCAGCCACCTCCTCAACCTTGACTTCTG  $\tt CCCAAATCCCCTCCCTGTGACCCGTTCCATATCCCTTTCTCTTGTCCAATGGGGCTTGGAGCACCGAGGCCAGGCAGGCAGGCAAGGCAGGCAGGCAGGCAGAGGCAGGCAGGCAGGCAGGCAGGCAGGCAGGCAGAGGCAGGCAGAGGCAGGCAGAGGCAGAGAGA$ CGAAGCCATCGCGCTCCTTGCGGAGGTGAAGAGGACCCTGAGTCCCCACCTGCGGCTCCCCTGTGTAGAGCCTGC ATCTGTCTGTCCTTCCATTGCTCCCAGTGCCAAACTTGGGCCGCTGCACCGGGGGCGCCTCCGCCCAAATCA ATAAACTGTGTCTGTCCCAGG

MESAEPAGQARAAATKLSEAVGAALQEPRRQRRLVLVIVCVALLLDNMLYMVIVPIVPDYIAHMRGGGEGPTRTP EVWEPTLPLPTPANASAYTANTSASPTAAWPAGSALRPRYPTESEDVKIGVLFASKAILQLLVNPLSGPFIDRMS YDVPLLIGLGVMFASTVLFAFAEDYATLFAARSLQGLGSAFADTSGIAMIADKYPEEPERSRALGVALAFISFGS LVAPPFGGILYEFAGKRVPFLVLAAVSLFDALLLLAVAKPFSAAARRANLPVGTPIHRLMLDPYIAVVAGALTT CNIPLAFLEPTIATWMKHTMAASEWEMGMAWLPAFVPHVLGVYLTVRLAARYPHLQWLYGALGLAVIGASSCIVP ACRSFAPLVVSLCGLCFGIALVDTALLPTLAFLVDVRHVSVYGSVYAIADISYSVAYALGPIVAGHIVHSLGFEQ LSLGMGLANLLYAPVLLLLRNVGLLTRSRSERDVLLDEPPQGLYDAVRLRERPVSGQDGEPRSPPGPFDECEDDY NYYYTRS

 ${\tt GGCACGAGCTCGGCTCCTGGAAAG} {\color{red} {\bf ATG}} {\tt GAGGCAGCGGAGACAGAGGCGGAAGCTGCAGCCCTAGAGGTCCTGGCT}$ GAGGTGGCAGGCATCTTGGAACCTGTAGGCCTGCAGGAGGAGGCAGAACTGCCAAGATCCTGGTTGAGTTT GCTCAGGAGGACACTGCTAAGGGTCTCGACCCCTTGGCTTCTGAAGACACGAGCCGACAGAAGGCAATTGCAGCT AAGGAACAATGGAAAGAGCTGAAGGCCACCTACAGGGAGCACGTAGAGGCCATCAAAATTGGCCTCACCAAGGCC CTGACTCAGATGGAGGAAGCCCAGAGGAAACGGACACAACTCCGGGAAGCCTTTGAGCAGCTCCAGGCCAAGAAA CAAATGGCCATGGAGAAACGCAGAGCAGTCCAGAACCAGTGGCAGCTACAACAGGAGAAGCATCTGCAGCATCTG GCGGAGGTTTCTGCAGAGGTGAGGGAGCGTAAGACAGGGACTCAGCAGGAGCTTGACAGGGTGTTTCAGAAACTT GGAAACCTGAAGCAGCAGGCAGAACAGGAGCGGGACAAGCTGCAGAGGTATCAGACCTTCCTCCAGCTTCTGTAT ACCCTGCAGGGTAAGCTGTTGTTCCCTGAGGCTGAGGCTGAGGCAGAATCTTCCAGATGATAAACCCCAGCAG CCGACTCGACCCCAGGAGCAGAGTACAGGAGACACCATGGGGAGAGACCCTGGTGTGTCCTTCAAGGCTGTTGGT CTACAACCTGCTGGAGATGTAAATTTGCCATGACTTCCTGGAGGACAGCAGCATGGAGAAAGATCCTAGAAAAAGG TCAGACCCAACTCAGGCCTTGGTGTCCCTGGACTGCAAGTGTGGAAGGAGGGAAAGCCTGGTTTACCTCTCTG CATCTGAGCTCTGCTACCCATGGAGCAGATGGATGGTGGGAACAGGAAAGAGCTTATGTTACACCTCATTCCCAT GCTTAGCCCACCCAGAGCTAACCCCTGTCTTCTTCCCCAGGCCTCTGACTTCCCCCACCCTCCCAACCATCATTAC AGGAAAGACTGTGAACTCCTGAGTTCAGCTTGATTTCTGACTACATCCCAGCAAGCTCTGGGCATCTGTGGATTAA AATCCCTGGATCTCTCAGTTGTGTATTTGTTCATCTTCATATGCTGGCAGGAACAACTATTAATACAGATACT TGGGCCTCCTATGATGCAGACATGGTGAATTTAATTCAAGGAGGAGAATGTTTTAGGCAGGTGGTTATATGT GGGAAGATAATTTTATTCATGGATCCAAATGTTTGTTGAGTCCTTTTGTGCTAAGGTTCTTGCGGTGAACCAGAA TTATAACAGTGAGCTCATCTGACTGTTTTAGGATGTACAGCCTAGTGTTAACATTCTTGGTATCTTTTTGTGCCT TATCTAAAACATTTCTCGATCACTGGTTTCAGATGTTCATTTATTATATTCTTTTCAAAGATTCAGAGATTGGCT TTTGTCATCCACTATTGTATGTTTTGTTTCATTGACCTCTAGTGATACCTTGATCTTTCCCACTTTCTGTTTTCG GATTGGAGAAGATGTACCTTTTTTGTCAACTCTTACTTTATCAGATGATCAACTCACGTATTTGGATCTTTATT 

 $\label{tem:label} $$ \texttt{MEAAETEAEAAALEVLAEVAGILEPVGLQEEAELPAKILVEFVVDSQKKDKLLCSQLQVADFLQNILAQEDTAKGLDPLASEDTSRQKAIAAKEQWKELKATYREHVEAIKIGLTKALTQMEEAQRKRTQLREAFEQLQAKKQMAMEKRRAVQNQWQLQQEKHLQHLAEVSAEVRERKTGTQQELDRVFQKLGNLKQQAEQERDKLQRYQTFLQLLYTLQGKLLFPEAEAEAENLPDDKPQQPTRPQEQSTGDTMGRDPGVSFKAVGLQPAGDVNLP}$ 

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## 3198/6881 FIGURE 2951

MSLTSSSSVRVEWIAAVTIAAGTAAIGYLAYKRFYVKDHRNKAMINLHIQKDNPKIVHAFDMEDLGDKAVYCRCW RSKKFPFCDGAHTKHNEETGDNVGPLIIKKKET

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## 3200/6881 FIGURE 2953

GGAAAGAAGGCCAAGGGAAAGAAGGTGGTTCCGGCCCCTGCTGTCATCAAGAAGCAGGAGGCTAAGAAAGTGGTG
AATCCCCTGTTTGAGAAACGGCCTAAGAATTTTGGCATTGGACAGGACATCCAGCCCAAAAGACACTTCACCCGC
TTTGTGAAATGGCCCTGCTATATCAGGTTGCAGCGGCAGAGAGCCATCCTCTATAAGGGGCTGAAAGTGCCTCCT
GCGATTAACCAGTTCACCCAGGCCCTGGACCGCCAAACAGCTACTCAGCTGCTTAAGCTGGCCCACAAGTACAGA
CCAGAGACAAAAGACACTTTGGCTAAGCTGGTGGAAGCTATCAGGACCAATTACAACGACAGATACAGAT
GAGATCCGCTGTCACTGGGGCAGCAACGTCCTGGGTCCTAAGTCCGTGGCTCGTATCGCCAAGCTCGAAAAGGCA
AAGGCTAAAGAACTTGCCACTAAACTGGGTTAAA

 ${\tt MKKQEAKKVVNPLFEKRPKNFGIGQDIQPKRHFTRFVKWPCYIRLQRQRAILYKGLKVPPAINQFTQALDRQTATQLLKLAHKYRPETKDTLAKLVEAIRTNYNDRYRYDEIRCHWGSNVLGPKSVARIAKLEKAKAKELATKLG$ 

WO 2004/030615 PCT/US2003/028547

#### 3202/6881 FIGURE 2955

CCGTTGTGGCGAGCGCTACACGAGGCAAACGACTTCTCCCTTCTTTGAACTGGACCCCGCGAGCACCAGAGTCGG TGACGCTAGTGATGGGACAGTACGACTTCGTGGACTACCATTTGGTTGCAGCAAAGAGGGAAATAGTTCAGTTCTT TCAAGGGTTGGAAATCGTGCCAAATGGGATAACATTGACGATGGACTACCAGGGGAGAAGCACAGGGGAGGCCTT CGTGCAGTTTGCTTCAAAGGAGATAGCAGAAAATGCTCTGGGGAAACACAAGGAAAGAATAGGGCACAGGTATAT TGAGATCTTCAGAAGTAGCAGGAGTGAAATCAAAGGATTTTATGATCCACCAAGAAGATTGCTGGGACAGCGACC TGGGAATGATGGCTTTGATGACAGAATGAGAGATGGAAGAGGTATGGGAGGACATGGCTATGGTGGAGCTGGTGA TGCAAGTTCAGGTTTTCATGGTGGTCATTTCGTACATATGAGAGGGTTGCCTTTTCGTGCAACTGAAAATGACAT TGCTAATTTCTCCCACCACTAAATCCAATACGAGTTCATATTGATATTGGAGCTGATGGCAGAGCCACAGGAGA AGCAGATGTAGAGTTTGTGACACATGAAGATGCAGTAGCTGCCATGTCTAAAGATAAAAATAACATGCAACATCG ATATATTGAACTCTTCTTGAATTCTACTCCTGGAGGCGGCTCTGGCATGGGAGGTTCTGGAATGGGAGGCTACGG AAGAGATGGAATGGATAATCAGGGAGGCTATGGATCAGTTGGAAGAATGGGGAATGGGGAACAATTACAGTGGAGG ATATGGTACTCCTGATGGTTTGGGTGGTTATGGCCGTGGTGGTGGAGGCAGTGGAGGTTACTATGGGCAAGGCGG  ${\tt CATGAGTGGAGGTGGATGGCGTGGGATGTAC} {\color{blue}{\textbf{TGA}}} {\color{blue}{\textbf{AAGCAAAAACACCAACATACAAGTCTTGACAACATCTG}}$ GTCTACTAGACTTTCTTACAGATTTAATTTCTTTTGTATTTTAAGAACTTTATAATGACTGAAGGAATGTGTTTT CAAAATATTATTTGGTAAAGCAACAGATTGTGATGGGAAAATGTTTTCTGTAGGTTTATTTGTTGCATACTTTGA CTTAAAAATAAATTTTTATATTCAAACCACTGATGTTGATACTTTTTTATATACTAGTTACTCCTAAAGATGTGCT GCCTTCATAAGATTTGGGTTGATGTATTTTACTATTAGTTCTACAAGAAGTAGTGTGGTGTAATTTTAGAGGATA ATGGTTCACCTCTGCGTAAACTGCAAGTCTTAAGCAGACATCTGGAATAGAGCTTGACAAATAATTAGTGTAACT TTTTTCTTTAGTTCCTCCTGGACAACACTGTAAATATAAAGCCTAAAGATGAAGTGGCTTCAGGAGTATAAATTC AGCTAATTATTTCTATATTATTTTTTCAAATGTCATTTATCAGGCATAGCTCTGAAACATTGATGATCTAAGA GGTATTGATTTCTGAATATTCATAATTGTGTTACCTGGGTATGAGAGTGTTGGAAGCTGAATTCTAGCCCTAGAT TTTGGAGTAAAACCCCTTCAGCACTTGACCGAAATACCAAAAATGTCTCCAAAAAATTGATAGTTGCAGGTTATC GCAAGATGTCTTAGAGTAGGGTTAAGGTTCTCAGTGACACAAGAATTCAGTATTAAGTACATAGGTATTTACTAT GGAGTATAATTCTCACAATTGTATTTTCAGTTTTCTGCCCAATAGAGTTTAAATAACTGTATAAATGATGACTTT AAAAAATGTAAGCAACAAGTCCATGTCATAGTCAATAAAAACAATCCTGCAGTTGGGTTTTGTATCTGATCCCT GCTTGGAGTTTTAATGTAAGAATCTATATGTAGCAAGGAAAAGGTGCTTTTTAATTTTAATCCCTTTGATCAAT  ${\tt ATGGCTTTTTTCCAAATTGGCTAATGGATCAAAATGAAACCTGTTGATGTGAATTCAGTTATTGAACTTGTTACT}$ 

MDWVMKHNGPNDASDGTVRLRGLPFGCSKEEIVQFFQGLEIVPNGITLTMDYQGRSTGEAFVQFASKEIAENALG KHKERIGHRYIEIFRSSRSEIKGFYDPPRRLLGQRPGPYDRPIGGRGGYYGAGRGSMYDRMRRGGDGYDGGYGGF DDYGGYNNYGYGNDGFDDRMRDGRGMGGHGYGGAGDASSGFHGGHFVHMRGLPFRATENDIANFFSPLNPIRVHI DIGADGRATGEADVEFVTHEDAVAAMSKDKNNMQHRYIELFLNSTPGGGSGMGGSGMGGYGRDGMDNQGGYGSVG RMGMGNNYSGGYGTPDGLGGYGRGGGGSGGYYGQGGMSGGGWRGMY

GCATGGCCAAGGCCGGGCGGCCGCCTTGCCCCCGCTTCCTTTCACGCTGTCGCTGCCCGTAGGTGGTTGTGGCCA CTGTGCCCGGAGGGAGGCGGCGGTGGCCAGTA<u>ATC</u>CCTGGGGAAACTCCTCTGGGGGGACATTATGGAGCTGGAAG ACTCGGATGAGAAATCAGAAACAAGAGAAAATGGTGTTACAGATGACCTGGATGCTCCCAAGGCCAAAAAATCTA AAATGAAAGAGAAGCTAAATGGAGACACTGAAGAAGGATTTAATAGACTTTCAGATGAATTCTCCAAATCTCATA CCAATTTTCCTATTTCTGAAGAGACTATAAAGCTTCTGAAAGGTCGAGGGGTAACATATCTCTTTCCTATTCAAG TTAAGACCTTTGGTCCTGTATATGAAGGAAAAGATTTAATAGCTCAAGCACGGACAGGAACAGGAAAGACATTCT TTGTTTTGGCTCCAACAAGGGAACTGGCAAACCAAGTAGCCAAAGACTTCAAAGATATAACTAGGAAACTCAGCG TGGCGTGTTTTTATGGTGGAACATCATATCAAAGCCAAATTAATCATATTCGAAATGGTATTGACATCTTGGTTG GAACACCTGGTCGTATCAAAGACCATCTGCAGAGTGGCCGATTGGATCTTTCTAAACTGCGACATGTTGTGCTTG ATGAAGTGGATCAGATGTTAGATTTAGGTTTCGCTGAACAAGTTGAAGATATTATTCATGAATCCTACAAAACTG ATTCTGAAGACAATCCTCAGACTTTACTTTTTTCTGCAACTTGCCCACAGTGGGTATACAAAGTTGCAAAAAAAT ACATGAAATCCAGATATGAACAGGTTGACCTTGTTGGAAAAATGACTCAAAAGGCTGCAACTACTGTGGAACATT TGGCCATCCAGTGTCATTGGTCTCAGAGGCCAGCAGTTATTGGAGATGTCCTTCAAGTCTACAGTGGGTCTGAAG GGAGGGCTATTATTTTCTGTGAGACCAAGAAGAATGTAACTGAAATGGCCATGAATCCACACATAAAACAGAATG CCCAGTGTTTACATGGGGACATTGCACAGTCACAAAGAGAAATTACACTAAAAGGCTTCAGAGAAGGTAGTTTTA AAGTTTTGGTGGCAACCAATGTGGCTGCCCGTGGTTTGGACATTCCTGAAGTTGACCTGGTGATTCAAAGTTCTC GTTTTTATCAACCAAGAGAAAGGGTCAACTAAGATATGTGGAACAAAAAGCAGGAATTACTTTTAAACGTGTAG GTGTTCCTTCTACAATGGATTTAGTTAAATCTAAAAGCATGGATGCCATCAGGTCTCTGGCTTCCGTTTCTTATG CTGCTGTTGATTTTTTCCGACCATCAGCTCAGAGACTGATAGAAGAGAAAGGTGCAGTGGATGCATTGGCTGCAG CTTTAGCCCACATTTCTGGTGCATCAAGCTTTGAACCACGATCTTTGATCACCTCTGATAAGGGGTTTGTGACCA TGACTCTGGAAAGCCTAGAGGAAATACAGGATGTCAGCTGTGCTTGGAAAGAACTTAACAGAAAGCTGAGTAGTA ATGCAGTGTCTCAGATTACCAGAATGTGCCTCCTGAAAGGAAATATGGGTGTTTGCTTTGATGTTCCTACAACTG CAGGCCGGTCAGGTGGTCGATCTGGCGGCCGGTCAGGTAGACAGAGTCGACAAGGAAGTCGCTCAGGAAGTCGAC AAGATGGTAGAAGACGAAGTGGGAATAGAAATCGATCAAGAAGTGGGGGCCACAAACGGAGTTTTGAC<u>TGA</u>GTAT TTGATAGTTAATCTACCAGTGTGAGCTTGCCTATTTCTGCCTAATCATGTACATTATCCACCAAAAATTAGGTCA TCATAGTTGAGGTATGTGTCTGCTATTTGCAAAGAAGTTGGTCGTATTTTTTTAAAAAGTATTTCACAAGAATGG 

MPGKLLWGDIMELEAPLEESESQKKERQKSDRRKSRHHYDSDEKSETRENGVTDDLDAPKAKKSKMKEKLNGDTE EGFNRLSDEFSKSHKSRRKDLPNGDIDEYEKKSKRVSSLDTSTHKSSDNKLEETLTREQKEGAFSNFPISEETIK LLKGRGVTYLFPIQVKTFGPVYEGKDLIAQARTGTGKTFSFAIPLIERLQRNQETIKKSRSPKVLVLAPTRELAN QVAKDFKDITRKLSVACFYGGTSYQSQINHIRNGIDILVGTPGRIKDHLQSGRLDLSKLRHVVLDEVDQMLDLGF AEQVEDIIHESYKTDSEDNPQTLLFSATCPQWVYKVAKKYMKSRYEQVDLVGKMTQKAATTVEHLAIQCHWSQRP AVIGDVLQVYSGSEGRAIIFCETKKNVTEMAMNPHIKQNAQCLHGDIAQSQREITLKGFREGSFKVLVATNVAAR GLDIPEVDLVIQSSPPQDVESYIHRSGRTGRAGRTGICICFYQPRERGQLRYVEQKAGITFKRVGVPSTMDLVKS KSMDAIRSLASVSYAAVDFFRPSAQRLIEEKGAVDALAAALAHISGASSFEPRSLITSDKGFVTMTLESLEEIQD VSCAWKELNRKLSSNAVSQITRMCLLKGNMGVCFDVPTTESERLQAEWHDSDWILSVPAKLPEIEEYYDGNTSSN SRQRSGWSSGRSGRSGRSGGRSGRGGRSGRQSRQGSRSGSRQDGRRRSGNRNRSRSGGHKRSFD

CTACCTCTCCTCCACGCGGTTGAGAAGACCGGTCGGCCTGGGCAACCTGCGCTGAAGATGCCGGGAAAACTC CGTAGTGACGCTGGTTTGGAATCAGACACCGCAATGAAAAAAAGGGGAGACACTGCGAAAGCAAACCGAGGAGAAA GAGAAAAAAGAGAGAGCCAAAATCTGATAAGACTGAAGAGATAGCAGAAGAAGAAGAAACTGTTTTCCCCAAAGC TAAACAAGTTAAAAAGAAAGCAGAGCCTTCTGAAGTTGACATGAATTCTCCTAAATCCAAAAAAGGCAAAAAAGAA AGAGGAGCCATCTCAAAATGACATTTCTCCTAAAACCAAAAGTTTGAGAAAAGAAAAAGGAGCCCATTGAAAAAGAA AGTGGTTTCTTCTAAAACCAAAAAAGTGACAAAAAATGAGGAGCCTTCTGAGGAAGAAATAGATGCTCCTAAGCC CAAGAAGATGAAGAAAGAAAAGGAAATGAATGGAGAAACTAGAGAAAAAGCCCCAAACTGAAGAATGGATTTCC TCATCCTGAACCGGACTGTAACCCCAGTGAAGCTGCCAGTGAAGAAAGTAACAGTGAGATAGAGCAGGAAATACC TGTGGAACAAAAGAGGCGCTTTCTCTAATTTTCCCATATCTGAAGAAACTATTAAACTTCTCAAAGGCCGAGG AGTGACCTTCCTATTCCTATACAAGCAAAGACATTCCATCATGTTTACAGCGGGAAGGACTTAATTGCACAGGC GAAGAGAGCCGTGCCCCTCAGGTACTGGTTCTTGCACCTACAAGAGAGTTGGCAAATCAAGTAAGCAAAGACTT  ${\tt CAGTGACATCACAAAAAAGCTGTCAGTGGCTTGTTTTTTATGGTGGAACTCCCTATGGAGGTCAATTTGAACGCAT}$ GAGGAATGGGATTGATATCCTGGTTTGGAACACCAGGTCGTATCAAAGACCACATACAGAATGGCAAACTAGATCT  ${\tt CACCAAACTTAAGCATGTTGTCCTGGATGAAGTGGACCAGATGTTGGATATGGGATTTGCTGATCAAGTGGAAGA}$ GATTTTAAGTGTGGCATACAAGAAAGATTCTGAAGACAATCCCCAAACATTGCTTTTTTCTGCAACTTGCCCTCA TTGGGTATTTAATGTTGCCAAGAAATACATGAAATCTACATATGAACAGGTGGACCTGATTGGTAAAAAAGACTCA GAAAACGGCAATAACTGTGGAGCATCTGGCTATTAAGTGCCACTGGACTCAGAGGGCAGCAGTTATTGGGGATGT CCAGAATTCAGCTATAAAGCAGGATGCTCAGTCCTTGCATGGAGACATTCCACAGAAGCAAAGGGAAATCACCCT GGTTGATTTGGTTATACAAAGCTCTCCACCAAAGGATGTAGAGTCCTACATTCATCGATCCGGGCGGACAGGCAG AGCTGGAAGGACGGGGTGTGCATCTGCTTTTATCAGCACAAGGAAGAATATCAGTTAGTACAAGTGGAGCAAAA AGCGGGAATTAAGTTCAAACGAATAGGTGTTCCTTCTGCAACAGAAATAATAAAAGCTTCCAGCAAAGATGCCAT CAGGCTTTTGGATTCCGTGCCTCCCACTGCCATTAGTCACTTCAAACAATCAGCTGAGAAGCTGATAGAGGAGAAA GGGAGCTGTGGAAGCTCTGGCAGCACCACTGGCCCATATTTCAGGTGCCACGTCCGTAGACCAGCGCTCCTTGAT CAACTCAAATGTGGGTTTTGTGACCATGATCTTGCAGTGCTCAATTGAAATGCCAAATATTAGTTATGCTTGGAA AGAACTTAAAGAGCAGCTGGGCGAGGAGATTGATTCCAAAGTGAAGGGAATGGTTTTTCTCAAAGGAAAGCTGGG TGTTTGCTTTGATGTACCTACCGCATCAGTAACAGAAATACAGGAGAAATGGCATGATTCACGACGCTGGCAGCT CTCTGTGGCCACAGAGCAACCAGAACTGGAAGGACCACGGGAAGGATATGGAGGCTTCAGGGGACAGCGGGAAGG CAGTCGAGGCTTCAGGGGACAGCGGGACGGAAACAGAAGATTCAGAGGACAGCGGGAAGGCAGTAGAGGCCCGAG AGGACAGCGATCAGGAGGTGGCAACAAAAGTAACAGATCCCAAAACAAAGGCCAGAAGCGGAGTTTCAGTAAAGC ATTTGGTCAATAATTAGAAATAGAAGATTTATATAGCAAAAAGAGAATGATGTTTGGCAATATAGAACTGAACAT TATTTTTCATGCAAAGTTAAAAGCACATTGTGCCTCCTTTTGACCACTTGCCAAGTCCCTGTCTCTTTCAGACAC AGACAAGCTTCATTTAAATTATTTCATCTGATCATTATCATTTATAACTTTATTGTTACTTCATCAGCTTTTTCCT TTTGAAAGGTGTATGAATTCATTACATTTTTATTCTAATGTATTATCTGTAGATTAGAAGATAAAAATCAAGCATG TATCTGCCTATACTTTGTGAGTTCACCTGTCTTTATACTCAAAAGTGTCCCTTAATAGTGTCCTTCCCTGAAAATA AATACCTAAGGGAGTGTAACAGTCTCTGGAGGACCACTTTGAGCCTTTGGAAGTTAAGGTTTCCTCAGCCACCTG CCGAACAGTTTCTCATGTGGTCCTATTATTTGTCTACTGAGACTTAATACTGAGCAATGTTTTGAAACAAGATTT CAAACTAATCTGGGTTGTAATACAGTTTATACCAGTGTATGCTCTAGACTTGGAAGATGTAGTATGTTTGATGTG GATTACCTATACTTATGTTCGTTTTGATACATTTTTAGCTTCTCATTATAAGGTGATTCATGCTTTAGTGAATTC TTCATAGATAGTATATAAAAGTACATTTTAATAGAAAGCCAGGGTTTTAAGGAATTTCACATGTATAAGGTGG CTCCATAGCTTTATTTGTAAGTAGGCTGGATAAATGGTGCTTAAATGGTAATGTACTCCACTTCTTCCTATTGGA AGATTAACATTATTTACCAAGAAGGACTTAAGGGAGTAAGGGGCGCAGATTAGCATTGCTCAAGAGTATGTAAAA **AAAAAAAAAAAAAAA** 

MNSPKSKKAKKEEPSQNDISPKTKSLRKKKEPIEKKVVSSKTKKVTKNEEPSEEEIDAPKPKKMKKEKEMNGET
REKSPKLKNGFPHPEPDCNPSEAASEESNSEIEQEIPVEQKEGAFSNFPISEETIKLLKGRGVTFLFPIQAKTFH
HVYSGKDLIAQARTGTGKTFSFAIPLIEKLHGELQDRKRGRAPQVLVLAPTRELANQVSKDFSDITKKLSVACFY
GGTPYGGQFERMRNGIDILVGTPGRIKDHIQNGKLDLTKLKHVVLDEVDQMLDMGFADQVEEILSVAYKKDSEDN
PQTLLFSATCPHWVFNVAKKYMKSTYEQVDLIGKKTQKTAITVEHLAIKCHWTQRAAVIGDVIRVYSGHQGRTII
FCETKKEAQELSQNSAIKQDAQSLHGDIPQKQREITLKGFRNGSFGVLVATNVAARGLDIPEVDLVIQSSPPKDV
ESYIHRSGRTGRAGRTGVCICFYQHKEEYQLVQVEQKAGIKFKRIGVPSATEIIKASSKDAIRLLDSVPPTAISH
FKQSAEKLIEEKGAVEALAAALAHISGATSVDQRSLINSNVGFVTMILQCSIEMPNISYAWKELKEQLGEEIDSK
VKGMVFLKGKLGVCFDVPTASVTEIQEKWHDSRRWQLSVATEQPELEGPREGYGGFRGQREGSRGFRGQRDGNRR
FRGQREGSRGPRGQRSGGGNKSNRSQNKGQKRSFSKAFGQ

 ${\tt GAATTCCGCTAGACTAAGTTGGTC} \underline{{\tt ATG}} {\tt ATG} {\tt ATGCAGAAGCTACTCAAATGCAGTCGGCTTGTCCTGGCTCTTGCCCTC}$ ATCCTGGTTCTGGAATCCTCAGTTCAAGGTTATCCTACGCAGAGAGCCAGGTACCAATGGGTGCGCTGCAATCCA GACAGTAATTCTGCAAACTGCCTTGAAGAAAAAGGACCAATGTTCGAACTACTTCCAGGTGAATCCAACAAGATC CCCCGTCTGAGGACTGACCTTTTTCCAAAGACGAGAATCCAGGACTTGAATCGTATCTTCCCACTTTCTGAGGAC TACTCTGGATCAGGCTTCGGCTCCGGCTCTGGATCAGGATCTGGGAGTGGCTTCCTAACGGAAATGGAA CAGGATTACCAACTAGTAGACGAAAGTGATGCTTTCCATGACAACCTTAGGTCTCTTGACAGGAATCTGCCCTCA GACAGCCAGGACTTGGGTCAACATGGATTAGAAGAGGATTTTATGTTATAAAAGAGGATTTTCCCACCTTGACAC CAGGCAATGTAGTTAGCATATTTTATGTACCATGGTTATATGATTAATCTTGGGACAAAGAATTTTATAGAAATT TTGGCAGGTAATATTTCATACCTAAATTAAGACTCTGACTTGGATTGTGAATTATAATGATATGCCCCTTTTCTT ATAAAAACAAAAAAAAAATAATGAAACACAGTGAATTTGTAGAGTGGGGGTATTTGACATATTTTACAGGGTGGA GTGTACTATATACTATTACCTTTGAATGTGTTTGCAGAGCTAGTGGATGTGTTTGTCTACAAGTATGATTGCTGT TACATAACACCCCAAATTAACTCCCAAATTAAAACACAGTTGTGCTGTCAATACCTCATACTGCTTTACCTTTTT 

 $\label{thm:mmqklkcsrlvlalalilvlessvqgyptqraryqwvrcnpdsnsancleekgpmfellpgesnkiprlrtdlfpktriqdlnrifplsedysgsgfgsgsgsgsgsgfltemeqdyqlvdesdafhdnlrsldrnlpsdsqdlgqhgleedfml$ 

GAGCCCCGGAGCCCCCGTAACCCGCGCGGGAGCGCCCAGGATGCCGCGCGGGGACTCGGAGCAGGTGCGCTACT GCGCGCGCTTCTCCTACCTCTGGCTCAAGTTTTCACTTATCATCTATTCCACCGTGTTCTGGCTGATTGGGGCCC TGGTCCTGTCTGTGGGCATCTATGCAGAGGTTGAGCGGCAGAAATATAAAACCCTTGAAAGTGCCTTCCTGGCTC CAGCCATCATCCTCATCCTCCTGGGCGTCGTCATGTTCATGGTCTCCTTCATTGGTGTGCTGGCGTCCCTCCGTG ACAACCTGTACCTTCTCCAAGCATTCATGTACATCCTTGGGATCTGCCTCATCATGGAGCTCATTGGTGGCGTGG TGGCCTTGACCTTCCGGAACCAGACCATTGACTTCCTGAACGACAACATTCGAAGAGGAATTGAGAACTACTATG ATGATCTGGACTTCAAAAACATCATGGACTTTGTTCAGAAAAAGTTCAAGTGCTGTGGCGGGGAGGACTACCGAG ATTGGAGCAAGAATCAGTACCACGACTGCAGTGCCCCTGGACCCCTGGCCTGTGGGGTGCCCTACACCTGCTGCA TCAGGAACACGACAGAAGTTGTCAACACCATGTGTGGCTACAAAACTATCGACAAGGAGCGTTTCAGTGTGCAGG ATGTCATCTACGTGCGGGGCTGCACCAACGCCGTGATCATCTGGTTCATGGACAACTACACCATCATGGCGGGCA TCCTCCTGGGCATCCTGCTTCCCCAGTTCCTGGGGGTGCTGCTGACGCTGTACATCACCCGGGTGGAGGACA GATGCTGCTTGTGCTACCCCAATTAGGGCCCAGCCTGCCATGGCAGCTCCAACAAGGACCGTCTGGGATAGCACC TCTCAGTCAACATCGTGGGGCTGGACAGGGCTGCGGCCCCTCTGCCCACACTCAGTACTGACCAAAAGCCAGGGCT GTGTGTGCCTGTGTGTAGGTCCCACGGCCTCTGCCTCCCCAGGGAGCAGAGCCTGGGCCTCCCCTAAGAGGCTTT CCCCGAGGCAGCTCTGGAATCTGTGCCCACCTGGGGCCTGGGGAACAAGGCCCTCCTTTCTCCAGGCCTGGGCTA CGGGGGAGGGAGAGCCTGAGGCTCTGCTCAGGGCCCATTTCATCTCTGGCAGTGCCTTGGCGGTGGTATTCAAGG CAGTTTTGTAGCACCTGTAATTGGGGAGGGGAGTGTGCCCCTCGGGGCAGGGGAAGGGCATCTGGGGAAGGG CAGGAGGAAGAGCTGTCCATGCAGCCACGCCCATGGCCAGGTTGGCCTCTTCTCAGCCTCCCAGGTGCCTTGAG GATAACAGGAGTTTCTGACTAATCAAAGCTGGTATTTCCCCGCATGTCTTATTCTTGCCCTTCCCCCAACCAGTT TGTTAATCAAACAATAAAAACATGTTTTTTTT

GGGCTCTCTCCTTGTCAGTCGGCGCCGCGTGCGGGCTGGTGGCTCTGTGGCAGCGGCGGCGGCAGGACTCCGGCA  $\mathtt{CT} \underline{\mathbf{ATG}} \mathtt{AGCGGCTTCAGCACCGAGGAGCGCCGCCCCTTCTCCCTGGAGTACCGAGTCTTCCTCAAAAATGAGA$ AAGGACAATATATATCTCCATTTCATGATATTCCAATTTATGCAGATAAGGATGTGTTTCACATGGTAGTTGAAG TACCACGCTGGTCTAATGCAAAAATGGAGATTGCTACAAAGGACCCTTTAAACCCTATTAAACAAGATGTGAAAA AAGGAAAACTTCGCTATGTTGCGAATTTGTTCCCGTATAAAGGATATATCTGGAACTATGGTGCCATCCCTCAGA CTTGGGAAGACCCAGGGCACAATGATAAACATACTGGCTGTTGTGGTGACAATGACCCAATTGATGTGTGAAA TTGGAAGCAAGGTATGTGCAAGAGGTGAAATAATTGGCGTGAAAGTTCTAGGCATATTGGCTATGATTGACGAAG GGGAAACCGACTGGAAAGTCATTGCCATTAATGTGGATGATCCTGATGCAGCCAATTATAATGATATCAATGATG TCAAACGGCTGAAACCTGGCTACTTAGAAGCTACTGTGGACTGGTTTAGAAGGTATAAGGTTCCTGATGGAAAAC CAGAAAATGAGTTTGCGTTTAATGCAGAATTTAAAGATAAGGACTTTGCCATTGATATTAATAAAAGCACTCATG ACCATTGGAAAGCATTAGTGACTAAGAAAACGAATGGAAAAGGAATCAGTTGCATGAATACAACTTTGTCTGAGA  $\texttt{CAGTACCAACAGACGTGGATAAGTGGTTCCATCACCAGAAAAAC\underline{\textbf{TAA}}\texttt{TGAGATTTCTCTGGAATACAAGCTGATA}$ TTGCTACATCGTGTTCATCTGGATGTATTAGAAGTAAAAGTAGCTTTTCAAAGCTTTAAATTTGTAGAACTC ATCTAACTAAAGTAAATTCTGCTGTGACTAATCCAATATACTCAGAATGTTATCCATCTAAAGCATTTTTCATAT CTCAACTAAGATAACTTTTAGCACATGCTTAAATATCAAAGCAGTTGTCATTTGGAAGTCACTTGTGAATAGATG ΑΑΑΑΑΑ

MSGFSTEERAAPFSLEYRVFLKNEKGQYISPFHDIPIYADKDVFHMVVEVPRWSNAKMEIATKDPLNPIKQDVKK GKLRYVANLFPYKGYIWNYGAIPQTWEDPGHNDKHTGCCGDNDPIDVCEIGSKVCARGEIIGVKVLGILAMIDEG ETDWKVIAINVDDPDAANYNDINDVKRLKPGYLEATVDWFRRYKVPDGKPENEFAFNAEFKDKDFAIDIIKSTHD HWKALVTKKTNGKGISCMNTTLSESPFKCDPDAARAIVDALPPPCESACTVPTDVDKWFHHQKN

#### 3213/6881 FIGURE 2966A

ATGAGCTGCTCAAGGCTCATTACACGTTGGGCCGGCTCTCGGACAACACCCCTGAGCACTACCTGGTGCAAGGCC GCTACTTCCTGGTGCGGGATGTCACTGAGAAGATGGATGTGCTGGGCACCGTGGGAAGCTGTGGGGCCCCCAACT AGAAACTCCAGAAGGACGGACATAGGGAGTGTGTCATCTTCTGTGTGCGGGAGGAACCTGTGCTTTTCCTGCGTG CAGATGAGGACTTTGTGTCCTACACACCTCGAGACAAGCAGAACCTTCATGAGAACCTCCAGGGCCTTGGACCCG GGGTCCGGGTGGAGAGCCTGGACTCGGCAAAGAGATCCACGACTTTGCCCAGCTGAGCGAGAACACAT ATGTGACGGAGGAGGTGTACAAGCGGCCCCTCTTCCTGCAGCCCACCTACAGGTACCACCGCCTGCCCCG AGCAAGGGAGTCCCTGGAGGCCCAGTTGGACGCCTTTGTCAGTGTTCTCCGGGAGACCCCCAGCCTGCTGCAGC TCCGTGATGCCCACGGGCCTCCCCAGCCCTCGTCTTCAGCTGCCAGATGGGCGTGGGCAGGACCAACCTGGGCA AGCCCCTGCCTATGGAGCAGTTCCAGGTGATCCAGAGCTTTCTCCGCATGGTGCCCCAGGGAAGGAGGATGGTGG AAGAGGTGGACAGAGCCATCACTGCCTGTGCCGAGTTGCATGACCTGAAAGAAGTGGTCTTGGAAAAACCAGAAGA AGTTAGAAGGTATCCGACCGGAGAGCCCAGCCCAGGGAAGCGGCAGCCGACACAGCGTCTGGCAGAGGGCGCTGT GGAGCCTGGAGCGATACTTCTACCTGATCCTGTTTAACTACTACCTTCATGAGCAGTACCCGCTGGCCTTTGCCC TCAGTTTCAGCCGCTGGCTGTGTCCCCACCCTGAGCTGTACCGCCTGCCCGTGACGCTGAGCTCAGCAGGCCCTG TGGCTCCGAGGGACCTCATCGCCAGGGGCTCCCTACGGGAGGACGATCTGGTCTCCCCGGACGCCTCAGCACTG TCAGAGAGATGGATGTGGCCAACTTCCGGCGGTGCCCCGCATGCCCATCTACGGCACGGCCCAGCCCAGCGCCA AGGCCCTGGGGAGCATCCTGGCCTACCTGACGGACGCCAAGAGGAGGCTGCGGAAGGTTGTCTGGGTGAGCCTTC GGGAGGAGGCCGTGTTGGAGTGTGACGGGCACACCTACAGCCTGCGGTGGCCTGGGCCCCCTGTGGCTCCTGACC AGCTGGAGACCCTGGAGGCCCAGCTGAAGGCCCATCTAAGCGAGGCCTCCCCCAGGCAAGGAGGGCCCCCTGACCT ACCGCATCCCCATGCCGGACTTCTGTGCCCCCCGAGAGGAGGACTTTGACCAGCTGCTGGAGGCCCTGCGGGCCG CCCTCTCCAAGGACCCAGGCACTGGCTTCGTGTTCAGCTGCCTCAGCGGCCAGGGCCGTACCACAACTGCGATGG ATGCCAAGTTCACTAAGGGTGAATTTCAGGTAGTAATGAAGGTGGTGCAGCTGCTACCCGATGGGCACCGTGTGA AGAAGGAGGTGGACGCAGCGTGGACACTGTCAGCGAGACCATGACGCCCATGCACTACCACCTGCGGGAGATCA TCATCTGCACCTACCGCCAGGCGAAGGCAGCGAAAGAGGCGCAAGAAATGCGGAGGCTGCAGCTGCGGAGCCTGC AGTACTTGGAGCGCTATGTCTGCCTGATTCTCTTCAACGCGTACCTCCACCTGGAGAAGGCCGACTCCTGGCAGA GGCCCTTCAGCACCTGGATGCAGGAGGTGGCATCGAAGGCTGGCATCTACGAGATCCTTAACGAGCTGGGCTTCC CCGAGCTGGAGAGCGGGGGGGACCAGCCCTTCTCCAGGCTGCGCTACCGGTGGCAGGAGCAGAGCTGCAGCCTCG TGGGGTGTCTGAGGTGCTCTTGGCTGGGAGCGGCCCTGAGGGGTGCTGGCCTTGAAATGATTCCCCCACTTCCTG GAGAGACTGAGCGGAGTTGGGAGCCTTTTTAGAAAGAACTTTTTATAGGACAGGGAGACAGCCATCCCTT GTGTACCTTGCAGACAGGCCGGCGTTCAGCCTCCAAGGGGGCTCACTCCCCCAGTTGCCAAACACTGTGGATCTCT CTGTCCTCTTCTCCCCTCTCTCAGATTGGCCTGGCAGCCCCTGGCACAGAGCAGACCCGGCCACTGGTAGCTCCC CACTTCCTTACTCCTGCTGCTGCCATTGCCGCTCCCCTTGTTGCTGCCCAAGCACTGCCCTCGGGCGTCTGGC AGCCTGAGGTGGGTGGAGGGGACAGTGTTCTGGATAGATCTATTATGTGAAAGGCAGCTTCACCCAGTTTTCTGG ACTCTCATGCCCCCATCTCCGACCTGGGAGACTTCAGGAATGACAACCTACCCAGCCTGGTGGGGCTGGCAGGAT GGTGGAGGTTTCTCAAGGAGCTGGAGACTTCAGGGAGCCCCTCTCATGGGGAGAAAGAGCTTCCAGGGGGCGAA CGCAGCACAGAGGAAGAGGCCTGCTCCACTTGTCTGGGAACCTGGGCAGGAGGCACAGAGGAAGCCAAGGCCTGG AGCTGCAGGTCCCCGGCATCTCTCTCTGTCCCGGCAGCCCAGGATGGCCTGGTGCCCCCACCTGCTGCAGCAGG AGCCCCAAGGAGTGCTAGCTGAGGGTGGTTGCTGGGGTGGTCCTCATGGACAGTGAGGTGTGCAAGGGTGCACTG CAGAAAAGGCCAGACCTGCTGAGTTAGAGGCTGCTGGGATCCACTGTTTCCACACAGCGGGAAGGCTGCTGGGA  ${\tt CCAGGAGCTGAACAGTGAGGAGGCTGTCCACCTTGCTTGGCTCACTGGGACCAGGAAAGCCTGTCTTTGGTTAGG}$  WO 2004/030615 PCT/US2003/028547

## 3214/6881 FIGURE 2966B

MGTTASTAQQTVSAGTPFEGLQGSGTMDSRHSVSIHSFQSTSLHNSKAKSIIPNKVAPVVITYNCKEEFQIHDEL LKAHYTLGRLSDNTPEHYLVQGRYFLVRDVTEKMDVLGTVGSCGAPNFRQVQGGLTVFGMGQPSLSGFRRVLQKL QKDGHRECVIFCVREEPVLFLRADEDFVSYTPRDKQNLHENLQGLGPGVRVESLELAIRKEIHDFAQLSENTYHV YHNTEDLWGEPHAVAIHGEDDLHVTEEVYKRPLFLQPTYRYHRLPLPEQGSPLEAQLDAFVSVLRETPSLLQLRD AHGPPPALVFSCQMGVGRTNLGMVLGTLILLHRSGTTSQPEAAPTQAKPLPMEQFQVIQSFLRMVPQGRRMVEEV DRAITACAELHDLKEVVLENQKKLEGIRPESPAQGSGSRHSVWQRALWSLERYFYLILFNYYLHEQYPLAFALSF SRWLCAHPELYRLPVTLSSAGPVAPRDLIARGSLREDDLVSPDALSTVREMDVANFRRVPRMPIYGTAQPSAKAL GSILAYLTDAKRRLRKVVWVSLREEAVLECDGHTYSLRWPGPPVAPDQLETLEAQLKAHLSEPPPGKEGPLTYRF QTCLTMQEVFSQHRRACPGLTYHRIPMPDFCAPREEDFDQLLEALRAALSKDPGTGFVFSCLSGQGRTTTAMVVA VLAFWHIQGFPEVGEEELVSVPDAKFTKGEFQVVMKVVQLLPDGHRVKKEVDAALDTVSETMTPMHYHLREIIIC TYRQAKAAKEAQEMRRLQLRSLQYLERYVCLILFNAYLHLEKADSWQRPFSTWMQEVASKAGIYEILNELGFPEL ESGEDQPFSRLRYRWQEQSCSLEPSAPEDLL

 $\texttt{CCGCCGTCTAGCGCCCCGACCTCGCCACC} \underline{\textbf{ATG}} \\ \texttt{AGAGCCCTGCTGGCGCGCCTGCTTCTCTGCGTCCTGGTCGTGA} \\$ GCGACTCCAAAGGCAGCAATGAACTTCATCAAGTTCCATCGAACTGTGACTGTCTAAATGGAGGAACATGTGTGT CCAACAAGTACTTCTCCAACATTCACTGGTGCAACTGCCCAAAGAAATTCGGAGGGCAGCACTGTGAAATAGATA GCCTGCCCTGGAACTCTGCCACTGTCCTTCAGCAAACGTACCATGCCCACAGATCTGATGCTCTTCAGCTGGGCC TGGGGAAACATAATTACTGCAGGAACCCAGACAACCGGAGGCGACCCTGGTGCTATGTGCAGGTGGGCCTAAAGC TGCTTGTCCAAGAGTGCATGGTGCATGACTGCGCAGATGGAAAAAAAGCCCTCCTCCTCCAGAAGAATTAAAAT TTCAGTGTGGCCAAAAGACTCTGAGGCCCCGCTTTAAGATTATTGGGGGAGAATTCACCACCATCGAGAACCAGC CCTGGTTTGCGGCCATCTACAGGAGGCACCGGGGGGGCTCTGTCACCTACGTGTGTGGAGGCAGCCTCATCAGCC CTTGCTGGGTGATCAGCGCCACACTGCTTCATTGATTACCCAAAGAAGGAGGACTACATCGTCTACCTGGGTC GCTCAAGGCTTAACTCCAACACGCAAGGGGAGATGAAGTTTGAGGTGGAAAACCTCATCCTACACAAGGACTACA GCGCTGACACGCTTGCTCACCACAACGACATTGCCTTGCTGAAGATCCGTTCCAAGGAGGGCAGGTGTGCGCAGC CATCCCGGACTATACAGACCATCTGCCTGCCCTCGATGTATAACGATCCCCAGTTTGGCACAAGCTGTGAGATCA CTGGCTTTGGAAAAGAGAATTCTACCGACTATCTCTATCCGGAGCAGCTGAAAATGACTGTTGTGAAGCTGATTT CCCACCGGGAGTGTCAGCAGCCCCACTACTACGGCTCTGAAGTCACCACCAAAATGCTGTGTGCTGACCCAC AGTGGAAAACAGATTCCTGCCAGGGAGACTCAGGGGGGACCCCTCGTCTGTTCCCTCCAAGGCCGCATGACTTTGA CTGGAATTGTGAGCTGGGGCCGTGGATGTGCCCTGAAGGACAAGCCAGGCGTCTACACGAGAGTCTCACACTTCT CACCCGCTTTCTTGCTGGTTGTCATTTTTGCAGTAGAGTCATCTCCATCAGCTGTAAGAAGAGACTGGGAAGATA GGCTCTGCACAGATGGATTTGCCTGTGCCACCCACCAGGGCGAACGACAATAGCTTTACCCTCAGGCATAGGCCT GGGTGCTGGCTGCCCAGACCCCTCTGGCCAGGATGGAGGGGTGGTCCTGACTCAACATGTTACTGACCAGCAACT AGCTCCCCGACGGTGGGCATTTGTGAGGCCCATGGTTGAGAAATGAATAATTTCCCAATTAGGAAGTGTAACAG CTGAGGTCTCTTGAGGGAGCTTAGCCAATGTGGGAGCAGCGGTTTGGGGAGCAGAGACACTAACGACTTCAGGGC GAGTGTAAGTGTGAGTAAGAGCTGGTGTCTGATTGTTAAGTCTAAATATTTCCTTAAACTGTGTGGACTGTGATG CCACACAGAGTGGTCTTTCTGGAGAGGTTATAGGTCACTCCTGGGGCCTCTTGGGTCCCCCACGTGACAGTGCCT GGGAATGTATTATTCTGCAGCATGACCTGTGACCAGCACTGTCTCAGTTTCACTTTCACATAGATGTCCCTTTCT CTGA

MRALLARLLLCVLVVSDSKGSNELHQVPSNCDCLNGGTCVSNKYFSNIHWCNCPKKFGGQHCEIDKSKTCYEGNG
HFYRGKASTDTMGRPCLPWNSATVLQQTYHAHRSDALQLGLGKHNYCRNPDNRRRPWCYVQVGLKLLVQECMVHD
CADGKKPSSPPEELKFQCGQKTLRPRFKIIGGEFTTIENQPWFAAIYRRHRGGSVTYVCGGSLISPCWVISATHC
FIDYPKKEDYIVYLGRSRLNSNTQGEMKFEVENLILHKDYSADTLAHHNDIALLKIRSKEGRCAQPSRTIQTICL
PSMYNDPQFGTSCEITGFGKENSTDYLYPEQLKMTVVKLISHRECQQPHYYGSEVTTKMLCAADPQWKTDSCQGD
SGGPLVCSLQGRMTLTGIVSWGRGCALKDKPGVYTRVSHFLPWIRSHTKEENGLAL

GCAGCAGGCCAAGGGGAGGTGCGAGCGTGGACCTGGGACGGTCTGGGCGGCTCTCGGTGGTTGGCACGGGTTC GCACACCCATTCAAGCGGCAGGACGCACTTGTCTTAGCAGTTCTCGCTGACCGCGCTAGCTGCGGCTTCTACGCT  $\tt CCGGCACTCTGAGTTCATCAGCAAACGCCCTGGCGTCTGTCCTCACC\underline{ATG}{CCTAGCCTTTGGGACCGCTTCTCGT}$ CGTCGTCCACCTCCTCTTCGCCCTCGTCCTTGCCCCGAACTCCCACCCCAGATCGGCCGCCGCGCTCAGCCTGGG GGTCGGCGACCCGGGAGGAGGGGTTTGACCGCTCCACGAGCCTGGAGAGCTCGGACTGCGAGTCCCTGGACAGCA GCAACAGTGGCTTCGGGCCGGAGGAAGACACGGCTTACCTGGATGGGGTGTCGTTGCCCGACTTCGAGCTGCTCA GTGACCCTGAGGATGAACACTTGTGTGCCAACCTGATGCAGCTGCTGCAGGAGAGCCTGGCCCAGGCGCGGCTGG GCTCTCGACGCCCTGCGGCCTGCTGATGCCTAGCCAGTTGGTAAGCCAGGTGGGCAAAGAACTACTGCGCCTGG TGGGCCAGCTGGCACTCGACCCCAGCCTGGTGCCCACCTTCCAGCTGACCCTCGTGCTGCGCCTGGACTCACGAC TGAGCACTGGCTTCCGAGTCATCAAGAAGAAGCTGTACAGCTCGGAACAGCTGCTCATTGAGGAGTGT<u>TGA</u>ACTT TGAGGGACTGATTCCAGTGGTTGGAAAACTGAGGCAGCCACCTAAGGTGGAGGTGGGGGAATAGTGTTTCCCAGG. AAGCTCATTGAGTTGTGCGGGTGGCTGTGCATTGGGGACACATACCCCTCAGTACTGTAGCATGGAACAAAGG CTTAGGGGCCAACAAGGCTTCCAGCTGGATGTGTGTGTAGCATGTACCTTATTATTTTTTGTTACTGACAGTTAAC AGTGGTGTGACATCCAGAGAGCAGCTGGGCTGCTCCCGCCCCAGCCTGGCCCAGGGTGAAGGAÄGAGGCACGTGC TCCTCAGAGCAGCCGGAGGGGGGGGGGGTCGGAGGTCGTGGAGGTGGTTTGTGTATCTTACTGGTCTGAAGGG ACCAAGTGTGTTTGTTTGTTTTGTATCTTGTTTTTCTGATCGGAGCATCACTACTGACCTGTTGTAGGCAGC TATCTTACAGACGCATGAATGTAAGAGTAGGAAGGGGTGGGGTGTCAGGGATCACTTGGGATCTTTGACACTTGAA AAATTACACCTGGCAGCTGCGTTTAAGCCTTCCCCCATCGTGTACTGCAGAGTTGAGCTGGCAGGGGAGGGGCTG AGAGGGTGGGGGCTGGAACCCCTCCCGGGAGGAGTGCCATCTGGGTCTTCCATCTAGAACTGTTTACATGAAGA TAAGATACTCACTGTTCATGAATACACTTGATGTTCAAGTATTAAGACCTATGCAATATTTTTTACTTTTCTAAT AAACATGTTTGTTAAAACAAAAAAAAAAAAAAAAAA

## 3220/6881 FIGURE 2972

MPSLWDRFSSSSTSSSPSSLPRTPTPDRPPRSAWGSATREEGFDRSTSLESSDCESLDSSNSGFGPEEDTAYLDG VSLPDFELLSDPEDEHLCANLMQLLQESLAQARLGSRRPARLLMPSQLVSQVGKELLRLAYSEPCGLRGALLDVC VEQGKSCHSVGQLALDPSLVPTFQLTLVLRLDSRLWPKIQGLFSSANSPFLPGFSQSLTLSTGFRVIKKKLYSSE QLLIEEC

#### 3221/6881 FIGURE 2973

 $\tt CGCATTGCAGACTGCGGAGTCAGACGGCGCT\underline{\textbf{ATG}} \texttt{TACGCCCTCTTCCTCCTGGCCAGCCTCCTGGGCGGCGCTCT}$ ATGCAAAGACGTTGTCACCGCAGCTGGTGATATGCTGAAGGACAATGCCACTGAGGAGGAGATCCTTGTTTACTT GGAGAAGACCTGTGACTGGCTTCCGAAACCGAACATGTCTGCTTCATGCAAGGAGATAGTGGACTCCTACCTCCC TGTCATCCTGGACATCATTAAAGGAGAAATGAGCCGTCCTGGGGAGGTGTGCTCTGCTCTCAACCTCTGCGAGTC TCTCCAGAAGCACCTAGCAGAGCTGAATCACCAGAAGCAGCTGGAGTCCAATAAGATCCCAGAGCTGGACATGAC TGAGGTGGTGGCCCCCTTCATGGCCAACATCCCTCTCCTCCTCTACCCTCAGGACGGCCCCCGCAGCAAGCCCCA ATGCAAGAACTATATCAGCCAGTATTCTGAAATTGCTATCCAGATGATGCACACGCAACCCCAAGGAGATCTG TGCGCTGGTTGGGTTCTGTGATGAGGTGAAAGAGATGCCCATGCAGACTCTGGTCCCCCCAAAGTGGCCTCCAA GAATGTCATCCCTGCCCTGGAACTGGTGGAGCCCATTAAGAAGCACGAGGTCCCAGCAAAGTCTGATGTTTACTG CGCTTTTGACAAAATGTGCTCGAAGCTGCCGAAGTCCCTGTCGGAAGAGTGCCAGGAGGTGGTGGACACGTACGG GGTGGGTTATTTGGATCGCAACCTGGAGAAAAACAGCACCAAGCAGGAGATCCTGGCTGCTCTTGAGAAAGGCTG  ${\tt CAGCTTCCTGCCAGACCCTTACCAGAAGCAGTGTGATCAGTTTGTGGCAGAGTACGAGCCCGTGCTGATCGAGAT}$  ${\tt CCTGGTGGAGGTGATGGATCCTTCGTGTGCTTGAAAATTGGAGCCTGCCCCTCGGCCCATAAGCCCTTGTT}$ GGGAACTGAGAAGTGTATATGGGGCCCAAGCTACTGGTGCCAGAACACAGAGACAGCAGCCCAGTGCAATGCTGT  $\tt CGAGCATTGCAAACGCCATGTGTGGAAC\underline{TAG}{GAGGAGGAATATTCCATCTTGGCAGAAACCACAGCATTGGTTTT$ TTTCTACTTGTGTGTCTGGGGGAATGAACGCACAGATCTGTTTGACTTTGTTATAAAAATAGGGCTCCCCACCT CCCCCATTTCTGTGTCCTTTATTGTAGCATTGCTGTCTGCAAGGGAGCCCCTAGCCCCTGGCAGACATAGCTGCT TCAGTGCCCCTTTTCTCTCTGCTAGATGGATGTTGATGCACTGGAGGTCTTTTAGCCTGCCCTTGCATGGCGCCT GCTGGAGGAGAGAGAGCTCTGCTGGCATGAGCCACAGTTTCTTGACTGGAGGCCATCAACCCTCTTGGTTGAGG GGACCCTCCCCGCTTTCCTGGGCCTCTCAGTTGAACAAAGCAGCAAAACAAAGGCAGTTTTATATGAAAGATTAG AAGCCTGGAATAATCAGGCTTTTTAAATGATGTAATTCCCACTGTAATAGCATAGGGATTTTGGAAGCAGCTGCT GGTGGCTTGGGACATCAGTGGGGCCAAGGGTTCTCTGTCCCTGGTTCAACTGTGATTTGGCTTTCCCGTGTCTTT  ${\tt CCTGGTGATGCCTTGTTTGGGGTTTGGGTTTGGGTGGGAAGAGGGCCATCTGCCTGAATGTAACCTGCTAGC}$ TCTCCGAAGGCCCTGCGGGCCTGGCTTGTGTGAGCGTGTGGACAGTGGTGGCCGCGCTGTGCCTGCTGTTGC TTTCAAATAAATATGGATGGCGAGCTCCTAGGCCTCTGGCTTCCTGGTAGAGGGCGGCATGCCGAAGGGTCTGCT GGGTGTGGATTGGATGCTGGGGTTGGAAGCTGTCTGTGGCCCACTTGGGCACCCACGCTTCTGTCCA  $\tt CTTCTGGTTGCCAGGAGCAGCAAGCCAGCAGGACATGAAGTTGCTATTAAATGGACTTCGTGATTTTTG$ TTTTGCACTAAAGTTTCTGTGATTTAACAATAAAATTCTGTTAGCC

## 3222/6881 FIGURE 2974

MYALFLLASLLGAALAGPVLGLKECTRGSAVWCQNVKTASDCGAVKHCLQTVWNKPTVKSLPCDICKDVVTAAGD
MLKDNATEEEILVYLEKTCDWLPKPNMSASCKEIVDSYLPVILDIIKGEMSRPGEVCSALNLCESLQKHLAELNH
QKQLESNKIPELDMTEVVAPFMANIPLLLYPQDGPRSKPQPKDNGDVCQDCIQMVTDIQTAVRTNSTFVQALVEH
VKEECDRLGPGMADICKNYISQYSEIAIQMMMHMQPKEICALVGFCDEVKEMPMQTLVPAKVASKNVIPALELVE
PIKKHEVPAKSDVYCEVCEFLVKEVTKLIDNNKTEKEILDAFDKMCSKLPKSLSEECQEVVDTYGSSILSILLEE
VSPELVCSMLHLCSGTRLPALTVHVTQPKDGGFCEVCKKLVGYLDRNLEKNSTKQEILAALEKGCSFLPDPYQKQ
CDQFVAEYEPVLIEILVEVMDPSFVCLKIGACPSAHKPLLGTEKCIWGPSYWCQNTETAAQCNAVEHCKRHVWN

(

## 3223/6881 FIGURE 2975

AGCCTGAACCTCTAGGACTTTTAATTGATACCAGTGGTCTCCGCTCTGAAACAGTCCACCAGAATGAGGGTACCA AACTGACCTCAGAGGTTTCCAGGTTTGATGAACTTGTGAAAAAATTCAAAGTCGAATATCATGCTGGTGGCTCTA CCCAGAATTCAATTAAAGTGGCTCAGAATCTGGAGAGCCTGTCTTGTTTGCCCGGACAGATACCCCTCTTCCAGC AGATCTCTGCACAGAATTATTTTCAGACCACAGCAAGAAGGGTCAGAGCTGAGAATGGACCACCTGAGGATCTGC TGTGGGATGGAGCAGGAACCTGCTTAGGTGGTACCAATCTTGACTTCCAGATGGAACAGTACATCTCTATAAGGA AAAGTGATGGCATCCACATCGTAAATCTGAAGAGGACCTGGGAGAAGCTTCTGCTGGCAGCTTGTGCCATTGTTG CCATTGAAAACCCTGCTGATGTCAGTGTTATATCCTCCAGGAATATTGGCCAAAGGGCTGTGCTGAAGTTTGCTG CTGCCACTGGAGCCACTCCAATTGTTGGCCACTTCACTCCTGGAACCTTCACTAACCACATCCAGGCAGCCTTCC AAGAGCCACGGCTTCTTGTGGTTACTGACCCCAGGGCTGACCACCAGCCTCTCACAGAGGCATCTTACGTTAACC TATCTACCGTTGCTTTGTGTAACACAGATTCTCCTCTGCACTTTGTGGACATTGCCATTCTATGCAACAATAAGG GAGCTCACTCAATGGGTTTGATGTGGTGGATGCCAGCCCGGGAAGGTTTGCGCGCGTGTGGCACCATTTCCCATG AACACCCATGGGAATTCATGCCTGATCTCTACAGAGATCCTAAAGAGACTGAAAAAGCAGAGCAGCCTGCTGCTG AAAAGGCTGTGACCAAGGAGGAATTTCAGGGTGAATGGACTGCTCCAGCTCCTGAGTTAACTGCTACTCAGCCTG AGGTTGCAGACTGGTCTGAAGGTGTGCAGGTGCCCTCTGCGCCTATTCATCAGTTCCCTACTGAAGACTGGAGTG  $\tt CTGAGCCTGCCACGGAAGGCTGGTCCACAGCTCCCAATGCTCAGGCCATTGAATGGTGGATGATTCAACAGCCAC$ ACAAAGCAGCAACATTTTTTGGATGCATTGGGATAGATAAATTTTGGGGAGATCCTGAAGAGAAAAAGCTGCTGAAG ACAGGTCCCTCATAGCTAATCTTGCTGCTGCCAATTGTTATAAAAAGGAAAAACATCTTGATCTGGAGAAAAACT GGATGTTGGTAGAAAAAGCAAGAGTTTGTTATATAGCAGGTGTGATAAAGCATATTACTAGAAAAGCATCAATCG ATGCCTCTGCTCCCAGATTTCTAATCAAACCCTGGAACAAAAGAGCCCAAGCACATTCTATCTGA

CTTTTCCTCCTTGGCTGTCTGAAGATAGATCGCCATCATGAACACCGTAACTATCCGCACTAGAAAGTTCAT
GACCAACCGACTACTTCAGAGGAAACAAATGGTCATTGATGTCCTTCACCCCGGGAAGGCGACAGTGCCTAAGAC
AGAAATTCGGGAAAAACTAGCCAAAATGTACAAGACCACCCGGATGTCATCTTTGTATTTGGATTCAGAACTCA
TTTTGGTGGTGGCAAGACAACTGGCTTTGGCATGATTTATGATTCCCTGGATTATGCAAAGAAAAATGAACCCAA
ACATAGACTTGCAAGACATGGCCTGTATGAGAAGAAAAAGACCTCAAGAAAGCAACGAAAGGAACGCAAGAACAG
AATGAAGAAAGTCAGGGGGGACTGCAAAGGCCCAATGTTGGTGCTGGCAAAAAGTGAGCTGGAGATTGGATCACAGC
CGAAGGAGTAAAGGTGCTGCAATGATGTTAGCTGTGGCCACTGTGGATTTTTCGCAAGAACATTAATAAACTAAA
AACTTCATGTGT

# 3227/6881 FIGURE 2979

 ${\tt MNDTVTIRTRKFMTNRLLQRKQMVIDVLHPGKATVPKTEIREKLAKMYKTTPDVIFVFGFRTHFGGGKTTGFGMIYDSLDYAKKNEPKHRLARHGLYEKKKTSRKQRKERKNRMKKVRGTAKANVGAGKK$ 

CTTTTCCTCCTTGGCTGTCTGAAGATAGATCGCCATC<u>ATG</u>AACGACACCGTAACTATCCGCACTAGAAAGTTCAT
GACCAACCGACTACTTCAGAGGAAACAAATGGTCATTGATGTCCTTCACCCCGGGAAGGCGACAGTGCCTAAGAC
AGAAATTCGGGAAAAACTAGCCAAAATGTACAAGACCACACCGGATGTCATCTTTGTATTTGGATTCAGAACTCA
TTTTGGTGGTGGCGAAGACAACTGGCTTTGGCATGATTTATGATTCCCTGGATTATGCAAAGAAAAATGAACCCAA
ACATAGACTTGCAAGACATGGCCTGTATGAGAAGAAAAAAGACCTCAAGAAAGCAACGAAAGGAACGCAAGAACAG
AATGAAGAAAGTCAGGGGGACTGCAAAGGCCAATGTTGGTGCTGGCAAAAAGCCGAAGGAGCTAAAAGGTCGCAA
TGATGTTAGCTGTGGCCACTGTGGATTTTTCGCAAGAACATTAATAAACTAAAAACTTCATGTGT

MNDTVTIRTRKFMTNRLLQRKQMVIDVLHPGKATVPKTEIREKLAKMYKTTPDVIFVFGFRTHFGGGKTTGFGMI YDSLDYAKKNEPKHRLARHGLYEKKKTSRKQRKERKNRMKKVRGTAKANVGAGKKPKE

GACAGACTTGCGCGCGCCCAATGTGTATTCCTCCATCATATGCTGACCTTGGCAAAGTTGCCAGAGATATTTTCA  ${\tt ACAAAGGATTTGGTTTTTGGGTTGAAAACTGGATGTGAAAACAAAGTCTTGCAGTGGCGTGGAATTTTCAACGT}$  ${\tt CCGGTTCATCTAATACAGACACTGGTAAAGTTACTGGGACCTTGGAGACCAAATACAAGTGGTGAGTATGGTC}$ TGACTTTCACAGAAAAGTGGAACACTGATAACACTCTGGGAACAGAAATCGCAATTGAAGACCAGATTTGTCAAG AGAGGGAGTGTATAAACCTTGGTTGTGATGTTGACTTTGATTTTGCTGGACCTGCAATCCATGGTTCAGCTGTCT TIGGTTATGAGGGCTGGCTTGCTGGCTACCAGATGACCTTTGACAGTGCCAAATCAAAGCTGACAAGGAATAACT TTGCAGTGGGCTACAGGACTGGGGACTTCCAGCTACACACTAATGTCAATGATGGGACAGAATTTGGAGGATCAA TTGGCATTGCAGCTAAATATCAGTTGGATCCCACTGCTTCCATTTCTGCAAAAGTCAACAACTCTAGCTTAATTG GAGTAGGCTATACTCAGACTCTGAGGCCTGGTGTGAAGCTTACACTCTCTGCTCTGGTAGATGGGAAGAGCATTA  ${\tt ATGCTGGAGGCCACAAGGTTGGGCTCGCCCTGGAGTTGGAGGCT} {\tt {\tt TAA}} {\tt TCCAGCTGAAAGAAACCTTTGGGAATGG}$ ATATCAGAAGATTTGGCCTTAATATATTTCCATTGTGACCAGCAGCAGCCTTTTTTCCCCCCAAGAAGATGATCAA  ${\tt AACAAAGGATGATCTCAACAAGAGCTGTATTTAAGTATTTAGACAGTTCTTTGTTAGCTGGTTTCTAGTTGGTT}$ ATCTAGTTACCAATGCTGCAGTCCTGCAGTCACCTATACATTATTTAAATGTATTTAACTGTTAAATGCGCTACC  ${\tt ATTGACTGTTACCATTGAATGAGATGGATCAGTGGATATTAAGATGAGGTTACAAATTTTGTTAAGTTCAGCCAT}$ TATTACTTTTGGTATCCCAGAACATGACAAATTATGAATAAAACAAGTATACAT

MATHGQTCARPMCIPPSYADLGKVARDIFNKGFGFGLVKLDVKTKSCSGVEFSTSGSSNTDTGKVTGTLETKYKW CEYGLTFTEKWNTDNTLGTEIAIEDQICQGLKLTFDTTFSPNTGKKSGKIKSSYKRECINLGCDVDFDFAGPAIH GSAVFGYEGWLAGYQMTFDSAKSKLTRNNFAVGYRTGDFQLHTNVNDGTEFGGSIYQKVCEDLDTSVNLAWTSGT NCTRFGIAAKYQLDPTASISAKVNNSSLIGVGYTQTLRPGVKLTLSALVDGKSINAGGHKVGLALELEA

### 3232/6881 FIGURE 2984A

AGCCTTGTTGTCCTCCTGGTGCGAAGAGCTCGGCCGCCTGCTGCTGCTCCGACATCAGAAGAGCCGCCAGAGCGA TCCCCCTGGGAAACTCCCCATGCAGCCCCCTCTCAGCTCCATGAGCTCCATGAAACCCACTCTGTCGCACAGTGA CACGGTTTGGGGAGTAACCAACACTCCCAGAGCCAGGTCCTTGGGAACCCTATGGCCAATGCCAACAACCCCAT GAATCCAGGCGGCAACCCCATGGCGTCGGGCATGACCACCAGCAACCCAGGCCTCAACTCCCCACAGTTTGCGGG CTACCCGGCAGCGGGGCTTTGGGGCCAGTTACCCTGGGGGTCCTAACGCCCCGCAGGCATGGGCATCCCTCC CACAGCTACAGCCACAGCCACGGCCACTGTGGCAGCCCTGCAGGAGACAAGAACAAGGATATAAACCAGTATGG ACCGGTCTGTTCCTCTTTCCAGATGGGTCCCACCCAGGCGTATAACAGCCAATTCATGAACCAGCCCGGGCCGCG GGGGCCTGCCTCCATGGGGGGCAGCATGAACCCCGCGAGCATGGCGGCTGGCATGACGCCCTCGGGGATGAGCGG CCCTCCCATGGGCATGAACCAGCCCCGGCCGCCCGGCATCAGCCCCTTTGGCACACACGGGCAGCGGATGCCCCA GCAGACCTACCCGGGCCCCGGCCCCAGTCCCTTCCTATTCAGAACATAAAGAGGCCATACCCTGGAGAGGTGAG AAGGGGTGTGGCTTGGACTCCAGCACACTTGGACAAAGAGGCAGGGGCTTAGGGGTCAGGTGCTCCTGGGTTTGA GACCTGGTTCTGCTGTTTCCCAACTGAAAGACCTCGAGCCAGTCACCCTGCCTCCTAGGGCTGCTTGAGGGACTT TAGTGACTCTTGTCTTGGCTCAGCCACTAACTGGGTGACCTGGGTTTAGTTCCTCCTGCCCACATGAGAGCTTCC CCAACTCCTCTCCAAGAAAGAGAGCTGAGACAAAATGCTTCCAGTCTATAAGGGCTGACCCGTCCGGGAAGTGAC TGGAAGGCAGCGTGTTTCCAGTCTGTAAGGATTGACCTGTTGGGGAAGTGACTGGAAGGCAGAGAGCGTGT TTCCAATCTATAAGGACTGACCCGTTGGGGAAGTGACTGGAAGGCCGGCAGCTGTTTCCAGTCTATAAGGACTGA CTCAGAAAATGATGCTGGCAGCAGCTGGCCCATCTGGGTACCCAGGTAAGGATTTAGTTTACCTGCAGAAGACGT AGGGACGTGGCTCTGCAGATGCCCCTCGTGAAGCCCTGGTTGCTCCCCACGACCAAGCCCCTTTTTGAGCAGGGT GTGCCCAGCTCTCTGCCTGCCTCCCCAGCTTGCATGCCCACTCTCAGAGCAGTTTTCTCCTCCTAGCTCCTC TCAGCTCTGTGGCCTTCACCTTGGGTTCACAGCGGCTTTAGATTCCAAAGACCTTAAGTTCCTTGAAGATCTGCA CATTTCCCCTCAGTATCCACCTTAGGATGGGCGGGGGGGCTTGGCAACAAGTGGAGGTATTCTGAGTTCAGGAGG GGAGAGAGAGGGGGGGGGCTCAGGGGCTTCCTCATGCATCCAAGAAGCTGGATCAAGCCCCAACCCTCCACCTGG TGGACACTAGTTCAGGGAGGGGCCAGAGAAGGACCATTGGCTCCTGGGTCCTGAGTTTGGGGGAGCCTCAAGCTA TTGGCACCTCTCCTGGCACTCAGGCCCCATGCAGTTTCTAGGCCTTTTCTCAGCCACCCTGTGCTCAAAATCCCA GTGTCCCACTGGCTGTGCTGGGGGTGCATCTGTTAGCCCACGCCAAAGGAGGCAATCTCGGATGAGGCTTCAGCA CACACCAAAGGCTCTCCATATTTTTACTAAATTAATCATCCTTTTCATAGAGTGCTGCTGCTACCCAGCTACAGC ATACAATATTTGAATTGTTGGAGCCTTAGGACAGGGGTTGGGTCATCTGGTCCCACAGAGGACTCTCTTCTCTAG CACCATGTTGCAACAACGTGAGTTGTAGATTCTTCCACACTGACACTTTCTGACATTTATCCCTAAGTCCATCAT TCGTTTGTTGAGCAAGTATTAAGGGTATTTTCCCAGGCACTGGGGCACAGCCACCAACAGGACCTCTGGGCAAGA GAGACACTCAGATGGGGAAGAAGAAACCACTGACTCACAGGATGTCATGTGGCCGTGAGGGTCACCTGATTTTCC TCCTTCACCAACCTGGCTCTCCCACCTCCTGCACAGGTGGCAGGTTGTCGATGGCCCAGAACTGAACACTAGGTG TGTGTTCTGCTCTGAGGGGAGTACGAGGACAATGCCACCCAAGTTCAGCCTTGGAATGCAGGGGCACAGGGGGCT CCTTTCTGGAATTGCATCCTGTTGACTGTGTTCCTCTGTCACATTGGGGTACACATTGGGGAGCACAGCCCTAAC CCAGGCACCAGGAGAGACACAAAGGTCGGGGGAGTTAGAATCAGGCCCCTCATAATGGTGTGAGCAAGAGGCTCT GAAAGTGTCCCTGGAGTTCAGGGGCACATGTGCTCCAGGAAGAACGGCCTCAAGGGGAGGTGGCCTATGATCTGG

# 3233/6881 FIGURE 2984B

MNSMDRHIQQTNDRLQCIKQHLQNPANFHNAATELLDWCGDPRAFQRPFEQSLMGCLTVVSRVAAQQGFDLDLGY RLLAVCAANRDKFTPKSAALLSSWCEELGRLLLLRHQKSRQSDPPGKLPMQPPLSSMSSMKPTLSHSDGSFPYDS VPWQQNTNQPPGSLSVVTTVWGVTNTSQSQVLGNPMANANNPMNPGGNPMASGMTTSNPGLNSPQFAGQQQQFSA KAGPAQPYIQQSMYGRPNYPGSGGFGASYPGGPNAPAGMGIPPHTRPPADFTQPAAAAAAAAAAAAAATATATA ATVAALQETQNKDINQYGPVCSSFQMGPTQAYNSQFMNQPGPRGPASMGGSMNPASMAAGMTPSGMSGPPMGMNQ PRPPGISPFGTHGQRMPQQTYPGPRPQSLPIQNIKRPYPGEVSAAVGAWEVGTGTPGLEDMGRGYGFGRGVAWTP AHLDKEAGA

### 3235/6881 FIGURE 2986

CCCGCGCCTGCAGCAAGGGCTCCGGCGACCCGTCCTCTTCCTCCTCCTCCGGGAACCCGCTCGTGTACCTGGACG TGGACGCCAACGGGAAGCCGCTCGGCCGCGTGGTGCTGGAGCTGAAGGCAGATGTCGTCCCAAAGACAGCTGAGA ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGGCTCCACCTTCCACAGGGTGATCCCTTCCT TCATGTGCCAGGCGGCGACTTCACCAACCACAATGGCACAGGCGGGAAGTCCATCTACGGAAGCCGCTTTCCTG ACGAGAACTTTACACTGAAGCACGTGGGGCCAGGTGTCCTGTCCATGGCTAATGCTGGTCCTAACACCAACGGCT CCCAGTTCTTCATCTGCACCATAAAGACAGACTGGTTGGATGGCAAGCATGTTGTGTTCGGTCACGTCAAAGAGG GCATGGACGTCGTGAAGAAAATAGAATCTTTCGGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTCATCACAG  ${\tt ACTGTGGCCAGTTGAGC} {\color{blue}{\textbf{TAA}}} {\tt TCTGTGGCCAGGGTGCTGGCATGGTGGCAGCTGCAAATGTCCATGCACCCAGGTG}$ GCCGCGTTGGGCTGTCAGCCAAGGTGCCTGAAACGATACGTGTGCCCACTCCACTGTCACAGTGTGCCTGAGGAA TTTCTGGGCATCTTTGTGGACATGATGTCACCCACCCCTTGTCAAGCATTGCCTGTGATTGCCCAGCCCAGATTC ATCTGTGCCTTGGACATGGTGATGGTGATGGGTTGCCATCCAAGTGAAAGTCTTTTCCTTGACCAAGGGGGACAG CTAGAAGTGAAACTGCAACACTAACTTCCCCGTGCTGTGGTGTGACCTGAGTTGGTGACACAGGCCACAGACCCC AGAGCTTGGCTTTTGAAACACAACTCAGGGCTTTTGTGAAGGTTCCCCCGCTGAGATCTTTCCTCCTGGTTACTG TGAAGCCTGTTGGTTTGCTGCTGTCGTTTTTGAGGAGGGCCCATGGGGGTAGGAGCAGTTGAACCTGGGAACAAA  $\tt CCTCACTTGAGCTGTGCCTAGACAATGTGAATTCCTGTGTTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCC$ GGAGGGAAGCATTTCCTGGTAGGCTTTGATTTTTCTGTGTGTTAAAGAAATTCAATCTACTCATGATGTTATG ΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA ENFRALCTGEKGFGYKGSTFHRVIPSFMCQAGDFTNHNGTGGKSIYGSRFPDENFTLKHVGPGVLSMANAGPNTN GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS

ATCAGGAGCAGGAGCACACGTCCAGAACCAAAGCAGAGCGGTGTCCACGCCACTGCAAGCAGCAGGTCCAGATCC CACATTCCCACAGGAGCCATGGCAAAGGCCTGTGAGCCTGGGGCAGCTCCACCCCAAGAATCAGGGTCCCCAGTG CACCGGGACTCCGCTCCAAGGAGGAATGCAACCAGTTCCAGGGGGAACGGCCAGTGTGTTGCACGGTGGATGTGC TCAAGCTCCCGTTTGCTCATCAGCGGGAAACACAGGGTCACAGAGGCACCGCAGGGTGGAGAGAGGCAGGGACTG GGAATGAAACCACAAACTCTCCCAGATGCTGACGTTGCTGCCTCACAGTCACCACAGTCCATGGCCCTGGGCTGC TGGACTCATGGTGCACTCAGAGCTATCACTGGAGCCCGTGGCTTTGGGGAGTGCTCTCCTAGATGGCCTAGTCTT GATAATGATAGTAATGGGGACAGTAATCTGCAGCCCATCACCCTCACAACCGCCCTGCAAGCTCCCCTGAACAGC GTGACCTCCCGTCCATCCAGCAGCCTCTTTACGTGTGAGCTGCAGGACCAGCTCCAATGCCCCGAGGACACTCAC ATGAGGAAGCACGAAAGCGCTTCGGTGTCAGGACTCTGGGGAAGAGGGCGCCTGGAGCCTGCCAGACGAGGGGGG CCTGAGTTAGGACCAAGGTCTGCGCCTGAGCGGCCTTCACAGGCCCCACCTCTGTCCTCATCTGGACAAAGACGT TGGAAGCCCCGGCCCCACTCGGGCTGCAGCCATCCTGTTCTGTCACCAGAGACCCTGTCAGCCTCACAGGCATCT  $\tt CCCAAGCCATGGGTCAGGGATGAGTCTCTCAGCGGCCTGGTGGTCCTCAGCGTGCTCAGCAACAGGCTTACCTCC$ ATTCGAAGCCATCCCCTCAGGCTGGGCACTGACCACCGCCGTCTGGCAGTTTCCGCAATAAGAAAAGCCAAGGGA GCCTTGAGGCGGGGGGGGGGCGGGCCGGCCCTCAACCGCTCCCAGCGCCAGTTGCGGCGGTTGAT GGCAGGGAGACGCGCAGCGCGAGAGCAAAGGGCGGTGACCCAACGGCCTTCGCTCTCATGGCGTCCTTCTTGGTG TTACCTAAAAATAAAGCCAAGGGTGATCAGAAGCGAGGGACGCTGGCCTTCTCGCGGGCTTTCCCCCGATATCTCT CCAGCCAATAAAGCGCACGGATGGAGGCCACGTGACAGCAGTGGGCCCGGCCCTCCGGCTGAGCCCTGATCTCTAT GGTTTCCGCGGCTCGCTAGAAGGAGTGTGGTCCACCGGAGGACTCCCTACATTCTTCCTCCATTACCTCACTGCC ACCCAGGCGCATGGCTCCATGAAGCAAGAGGAGGAGGCAGAGCGCGAGAGGTCCCGTCCGCCCCAGCCGCGTCTG GGCCAGGATAAAAGAGACCCCGCGGTCCTGGGGCGAGGGTCCGGGGGCAGCCAAAACCATATTCCTGCTGCTGTC AGTTATGATGCACTGAGAAAACTTCAGAGACCTAAACTTTTTCCAGAGAAGAGAAGCTTTACTGGTGTTCCAGCC CTAAGCATTGACTTCACTAATGGATGTGACCTGGTTGGCAGCAGTAGCTTGCACAACATGCTTGTTTGCAAAAACC TTTGTTCAAGAAACGGCAGATGCTCTGTTGAATCCACTGGAGATTGTTCTGATACTAAGGACAAGTATGCTCAT ATGACATTAACAGACAAGACACTTTTCAGAAAGACAGTTGCTAATGGTAATGATGAAAAATAATGTCATCATCAGG TATTATTTAGCTATTGGAAGAAACCACTCGGTGTCGAGTTCATCAAGGAATCTGTCACAGATGTGA

MSRNEINAIQRECKTCNLRILCFRINPPKQGCYLGAWTAGLYYRKLGVIVADALVSQRHGHGGSNEGALSGPRKH PGALRRARFQREAGRPQPLPAPVAAVDGRETRSARAKGGDPTAFALMASFLVLPKNKAKGDQKRGTLAFSRLSPD ISLYSSCLKLGPTNGRQRPKFNPVKPAPANKAHGWRPRDSSGPALRLSPDLYGFRGSLEGVWSTGGLPTFFLHYL TASGGCWDTGGLGASGPPAGQLLSGAPTQAHGSMKQEEEAERERSRPPQPRLGQDKRDPAVLGRGSGGSQNHIPA AVSYDALRKLQRPKLFPEKRSFTGVPALSIDFTNGCDLVGSSSLHNMLVCKTFVQENGRCSVESTGDCSDTKDKY AHMTLTDKTLFRKTVANGNDENNVIIRYYLAIGRNHSVSSSSRNLSQM

### 3239/6881 FIGURE 2990

GCTGCTGCGCCCGCGGCTCCCCAGTGCCCCGAGTGCCCCGCGGGCCCCGCGAGCGGGAGTGGGACCCAGCCCTAG GCAGAACCCAGGCGCCCCGGGACGCCCGCGGAGAGAGCCACTCCCGCCCACGTCCCATTTCGCCCCTCGCG TCCGGAGTCCCCGTGGCCAGATCTAACCATGAGCTACCCTGGCTATCCCCCGCCCCCAGGTGGCTACCCACCAGC TGCACCAGGTGGTGCTCCCTGGGGAGGTGCTGCCTACCCTCCCGCCCAGCATGCCCCCCATCGGGCTGGATAA AGGAGCCAACATGCCCAACCTGTACCCTGGGGCCCCTGGGGCTACCCACCAGTGCCCCCTGGCGGCTTTGG GATGCCCTCATATCCGCCATACCCAGGGGCCCCTGTGCCGGGCCAGCCCATGCCACCCCCGGACAGCAGCCCCC AGGGGCCTACCCTGGGCAGCCACCAGTGACCTACCCTGGTCAGCCTCCAGTGCCACTCCCTGGGCAGCAGCAGCA AGTGCCGAGCTACCCAGGATACCCGGGGTCTGGGACTGTCACCCCCGCTGTGCCCCCAACCCAGTTTGGAAGCCG AGGCACCATCACTGATGCTCCCGGCTTTGACCCCCTGCGAGATGCCGAGGTCCTGCGGAAGGCCATGAAAGGCTT CGGGACGGATGAGCAGCCATCATTGACTGCCTGGGGAGTCGCTCCAACAAGCAGCGGCAGCAGATCCTACTTTC CTTCAAGACGCCTTACGGCAAGGATTTGATCAAAGATCTGAAATCTGAACTGTCAGGAAACTTTGAGAAGACAAT CTTGGCTCTGATGAAGACCCCAGTCCTCTTTGACATTTATGAGATAAAGGAAGCCATCAAGGGGGTTGGCACTGA TGAAGCCTGCCTGATTGAGATCCTCGCTTCCCGCAGCAATGAGCACATCCGAGAATTAAACAGAGCCTACAAAGC AGAATTCAAAAAGACCCTGGAAGAGGCCATTCGAAGCGACACATCAGGGCACTTCCAGCGGCTCCTCATCTCTCT CTCTCAGGGAAACCGTGATGAAAGCACAAACGTGGACATGTCACTCGCCCAGAGAGATGCCCAGGAGCTGTATGC  ${\tt GGCCGGGGAGAACCGCCTGGGAACAGACGAGTCCAAGTTCAATGCGGTTCTGTGCTCCCGGAGCCGGGCCCACCT}$ GGTAGCAGTTTTCAATGAGTACCAGAGAATGACAGGCCGGGACATTGAGAAGAGCATCTGCCGGGAGATGTCCGG GGACCTGGAGGAGGCATGCTGGCCGTGGTGAAATGTCTCAAGAATACCCCAGCCTTCTTTGCGGAGAGGCTCAA CCTGGACATCAGATCAGAGTATAAGCGGATGTACGGCAAGTCGCTGTACCACGACATCTCGGGAGATACTTCAGG GGATTACCGGAAGATTCTGCTGAAGATCTGTGGTGGCAATGACTGAACAGTGACTGGTGGCTCACTTCTGCCCAC CTGCCGGCAACACCAGTGCCAGGAAAAGGCCAAAAGAATGTCTGTTTCTAACAAATCCACAAATAGCCCCGAGAT AGAACTCTCTCAGGATGCCTTTTCTACCCCATCCCTCACAGCCTCTTGCTGCTAAAATAGATGTTTCATTTTTCT GAAAAAAA

MSYPGYPPPPGGYPPAAPGGGPWGGAAYPPPPSMPPIGLDNVATYAGQFNQDYLSGMAANMSGTFGGANMPNLYPGAPGAGYPPVPPGGFGQPPSAQQPVPPYGMYPPPGGNPPSRMPSYPPYPGAPVPGQPMPPPGQQPPGAYPGQPPVTYPGQPPVLPGQQQPVPSYPGYPGSGTVTPAVPPTQFGSRGTITDAPGFDPLRDAEVLRKAMKGFGTDEQAIIDCLGSRSNKQRQQILLSFKTAYGKDLIKDLKSELSGNFEKTILALMKTPVLFDIYEIKEAIKGVGTDEACLIEILASRSNEHIRELNRAYKAEFKKTLEEAIRSDTSGHFQRLLISLSQGNRDESTNVDMSLAQRDAQELYAAGENRLGTDESKFNAVLCSRSRAHLVAVFNEYQRMTGRDIEKSICREMSGDLEEGMLAVVKCLKNTPAFFAERLNKAMRGAGTKDRTLIRIMVSRSETDLLDIRSEYKRMYGKSLYHDISGDTSGDYRKILLKICGGND

GGTAGAGGCGGCGGCGGCGGCGGGCTCGGAGGCAGCGGTTGGGCTCGCGGCGAGCGGACGGGTCGAGT CAGTGCCGTTTGCGCCAGTTGGAATCGAAGCCTCTTAAAATTCGCCAGATGATTTTGGACTTCGAGACAGGAGATGCA GGGGCCTCAGCCACCTTCCCAATGCAGTGCTCAGCATTACGTAAGAATGGCTTTGTGGTGCTCAAAGGCTGGCCA ATCTTTACTGGGAAGAAATATGAAGATATCTGCCCGTCAACTCATAATATGGATGTCCCCAACATCAGAAGGAAT CGTCTCCCTGAGGGAGACCTTGGCAAGGAGACTGAGCAGAAGTACGACTGTGGAGAAGAGATCCTGATCACGGTG CTGTCTGCCATGACAGAGGAGGCAGCTGTTGCAATCAAGGCCATGGCAAAA<u>TAA</u>CTGGCTCCCAAGGTGGCAGTG GTGGCAGCAGTGATCCTCCGAACCTGCAGAGGCCCCCTCCCCCAGCCTGGCCTCGGCCTTGGCCTAGGCT GGACTCCTCCTACACAATTTATTTGACGTTTTATTTTGGTTTTCCCCACCCCTCAATCTGTCAGGGAGCCCCTG CCCTTCACCTAGCTCCCTTGGCCAGGAGCGAGCAAAGCCGTGGCCTTGGTGAAGCTGCCCTCTTCTCCCCTC TCAATCTGGAATCAGAAAGCAGTGGATTCTGGCAAATGGTCCTTGTGCCCTCCCCACTCATCCTTGGTCTGGTCC  $\tt CCTGTTGCCCATAGCCCTTTACCCTGAGCACCACCCAACAGACTGGGGACCAGCCCCTCGCCTGTGTTCTC$ AGGCCCTGCCCCATGGGCTTTACCCTTCCCTGAGGGCTCTCCCCGACACATTTGTTAAAATCAAACCTGAAT AAAACTACAAGTTTAATATG

MADDLDFETGDAGASATFPMQCSALRKNGFVVLKGWPCKIVEMSASKTGKHGHAKVHLVGIDIFTGKKYEDICPS THNMDVPNIRRNDFQLIGIQDGYLSLLQDSGEVPEDLRLPEGDLGKETEQKYDCGEEILITVLSAMTEEAAVAIK AMAK

#### 3243/6881 FIGURE 2994

MADDLDFETGDAGASATFPMQCSALRKNGFVVLKGWPCKIVEMSASKTGKHGHAKVHLVGIDIFTGKKYEDICPS
THNMDVPNIRRNDFQLIGIQDGYLSLLQDSGEVPEDLRLPEGDLGKETEQKYDCGEEILITVLSAMTEEAAVAIK
AMAK

### 3245/6881 FIGURE 2996

GTCCATTGGTGCAGGAGCCCTGGGGGCTGCTTGCCTTGGCATTGCTGCCAACACAGACGTGTTTCTGTCCAA GCCCCAGAAAGCGGCCCTGGAGTACCTGGAGGATATAGACCTGAAAACACTGGAGAAGGAACCAAGGACTTTCAA AGCAAAGGAGCTATGGGAAAAAAATGGAGCTGTGATTATGGCCGTGCGGAGGCCAGGCTGTTTCCTCTGTCGAGA GGAAGCTGCGGATCTGTCCTCCCTGAAAAGCATGTTGGACCAGCTGGGCGTCCCCCTCTATGCAGTGGTAAAGGA GCACATCAGGACTGAAGTGAAGGATTTCCAGCCTTATTTCAAAGGAGAAATCTTCCTGGATGAAAAAGAAAAGTT CTATGGTCCACAAAGGCGGAAGATGATGTTTATGGGATTTATCCGTCTGGGAGTGTGGTACAACTTCTTCCGAGC AAAGCAGGGCATTCTTCTTGAGCACCGAGAAAAAGAATTTGGAGACAAAGTAAACCTACTTTCTGTTCTGGAAGC  ${\tt TGCTAAGATGATCAAACCACAGACTTTGGCCTCAGAGAAAAAAT{\tt TGA}{\tt TTGTGTGAAACTGCCCAGCTCAGGGATAA}$ CCAGGGACATTCACCTGTGTTCATGGGATGTATTGTTTCCACTCGTGTCCCTAAGGAGTGAGAAACCCATTTATA CTCTACTCTCAGTATGGATTATTAATGTATTTTAATATTCTGTTTAGGCCCACTAAGGCAAAATAGCCCCAAAAC AAGACTGACAAAAATCTGAAAAACTAATGAGGATTATTAAGCTAAAACCTGGGAAATAGGAGGCTTAAAATTGAC TGCCAGGCTGGGTGCAGTGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCCAAGGTGAGCAAGTCACTTGAGG TCGGGAGTTCGAGACCAGCCTGAGCAACATGGCGAAACCCCGTCTCTACTAAAAATACAAAAATCACCCGGGTGT GGTGGCAGGCACCTGTAGTCCCAGCTACCCGGGAGGCTGAGGCAGGAGAATCACTTGAACCTGGGAGGTGGAGGT AAA

# 3246/6881 FIGURE 2997

MWSIGAGALGAAALALLLANTDVFLSKPQKAALEYLEDIDLKTLEKEPRTFKAKELWEKNGAVIMAVRRPGCFLC REEAADLSSLKSMLDQLGVPLYAVVKEHIRTEVKDFQPYFKGEIFLDEKKKFYGPQRRKMMFMGFIRLGVWYNFF RAWNGGFSGNLEGEGFILGGVFVVGSGKQGILLEHREKEFGDKVNLLSVLEAAKMIKPQTLASEKK

GTCATGCAGTGCGCCGGAGGAACTGTGCTCTTTGAGGCCGACGCTAGGGGCCCGGAAGGGAAACTGCGAGGCGAA GGTGACCGGGGACCGAGCATTTCAGATCTGCTCGGTAGACCTGGTGCACCACCACCATGTTGGCTGCAAGGCTGG TGTGTCTCCGGACACTACCTTCTAGGGTTTTCCACCCAGCTTTCACCAAGGCCTCCCCTGTTGTGAAGAATTCCA TCACGAAGAATCAATGGCTGTTAACACCTAGCAGGGAATATGCCACCAAAACAAGAATTGGGATCCGGCGTGGGA GAACTGGCCAAGAACTCAAAGAGGCAGCATTGGAACCATCGATGGAAAAAATATTTAAAATTGATCAGATGGGAA GATGGTTTGTTGCTGGAGGGGCTGCTGTTGGTCTTGGAGCATTGTGCTACTATGGCTTGGGACTGTCTAATGAGA CAGGGAGTATTGGTTTAACAGCTTTGTCTGCCATAGCAATCAGCAGAACGCCTGTTCTCATGAACTTCATGATGA GAGGCTCTTGGGTGACAATTGGTGTGACCTTTGCAGCCATGGTTGGAGCTGGAATGCTGGTACGATCAATACCAT ATGACCAGAGCCCAGGCCCAAAGCATCTTGCTTGGTTGCTACATTCTGGTGTGATGGGTGCAGTGGTGGCTCCTC TGACAATATTAGGGGGTCCTCTTCTCATCAGAGCTGCATGGTACACAGCTGGCATTGTGGGAGGCCTCTCCACTG TGGCCATGTGTGCGCCCAGTGAAAAGTTTCTGAACATGGGTGCACCCCTGGGAGTGGGCCTGGGTCTCGTCTTTG GTGGATTAGTTCTTTTCAGCATGTTCCTTCTGTATGATACCCAGAAAGTAATCAAGCGTGCAGAAGTATCACCAA TGTATGGAGTTCAAAAATATGATCCCATTAACTCGATGCTGAGTATCTACATGGATACATTAAATATATTTATGC CAAATATCTTGTTTAATGGGGCAGATATGCATTAAATAGTTTGTACAAGCAGCTTTCGTTGAAGTTTAGAAGATA AGAAACATGTCATCATATTTAAATGTTCCGGTAATGTGATGCCTCAGGTCTGCCTTTTTTTCTGGAGAATAAATG CAGTAATCCTCTCCCAAATAAGCACACACATTTTCAATTCTCATGTTTGAGTGATTTTAAAATGTTTTGGTGAAT GTGAAAACTAAAGTTTGTGTCATGAGAATGTAAGTCTTTTTTCTACTTTAAAATTTAGTAGGTTCACTGAGTAAC AGCTTTGGTAAAGGGACCAGAGAGAAGGAGTCACCTGCAGTCTTTTGTTTTTTAAATACTTAGAACTTAGCACT TGTGTTATTGATTAGTGAGGAGCCAGTAAGAAACATCTGGGTATTTGGAAACAAGTGGTCATTGTTACATTCATC TGCTGAACTTAACAAAACTGTTCATCCTGAAACAGGCACAGGTGATGCATTCTCCTGCTGTTGCTTCTCAGTGCT CTCTTTCCAATATAGATGTGGTCATGTTTGACTTGTACAGAATGTTAATCATACAGAGAATCCTTGATGGAATTA TATATGTGTGTTTTACTTTTGAATGTTACAAAAGGAAATAACTTTAAAACTATTCTCAAGAGAAAATATTCAAAG TTATTGAACTGTCTAATTGAATACAGCTTGCTCTTGTCACCTCTTCAAGCTTTCAAGCCTTTATAGAAAAGCTTC TTTGTGGCTTACACTGGAAATTATGAAAGCAGTTTTCTCCTAAGACTTTTGGTTTCTCGCATTGCCTCTCAGAC TAAGCACTAAAAAGCAAAGCAAAACAGAACTAGTTCTGTCTTAATGAAATATATCAACCCAAAAGTGTAATGAGG AAAATGCTTCATTAGTTTCCCCTAGCAGACTTTTACTTCTCTTACACTGCTACACCATTACTTTCTTGAGACATT TGTAAGTTCTTTGATACAGAAGAGTTATATTTAGAAGTCTTTAATGAAGGG

MVVDKNKRLIKGGKKGAKKKVVDPFSKKDWYDVNAPAMFNIRNIGKTLVTRTQGTKIASDGRVFEVSLADLQNDE VAFRKFKLITEDVQGKNCLTNFHGVDLTSDKMCSMVKKWQTMIEAHVDVKTTDGYLLRLFCVGFTKKRNNQIRKT SYAQHQQVRQIRKKMMEIMTREVQTNDLKEVVNKLIPDSIGKDVEKACQSIYPLHDVFVRKVKMLKKPKFELGKL MELHGEGCSSGKATGDETGVKVERADGYELPVQESV

GCCTGCCACCCTGGAGTGAGCCCCAGGCCAGGAGGCTGTTCCAGGAGTCCTGCCCAGCAGCCTCGGTGGCCAAGC CCAGACACTCACCCACCTTCCCCAGTGGCCCCGTGGATCCTGGTCCTAGGCTGGACACAGGATTCAGAAAGACAC CAGGCTGCACAGAAAGAGCCAGATGGACCTGAGTGTCGGTCACAGCCCCCTACACTCAAGGCTGAGAGGCCTCAG GAAAGTCATTCCTTTTTAAAAATAATAATAATGTAAGGGGGTACAGTGCAGTTTTGTTACATGGATAGATTGCC TAGTGGTGAAGTCTGGGCTTTTAGTGTAACCATCACCCTAATAATATACGTTGTACCCATTAAGTTATTTCTCAT CCCTCACCCCCTCCCACCTTGTCACCCTTCTGAGTCTCCAATGTCTATTATTCCACACTCCATGTCCACGTGTAC ACATTATTTAGCTCCCACTTACAAGTGAGAACATGTGGTATTTGACTTTCTGTTTTTGAGTTATTTCACTTAAAA TAATGACCTCCAGTTTCATCCATGTTGCTGCAAAAGACATGATCTCGTTCTTTTTTATGGCAGTGTAGTATTCCA TTCCATATACATATATAAACGTTATATATATGTAACGTTTTCTTTATCCAATCATCTGTTGATGGATAGATTCCA TATCTTTGCTACTGTAAACAGAGCTGTGATAAGCATACAAGTGCAGGTTTCTTTTTGATATACTGATTTCTTTTC CTTTGGGTAGATACCAGTAGTAGGACTGCTGGATCAAATGGTAGCTCTATTTTTAAGACAGTATGGAGAAATCAC CATACTGTTTTCCATAGGGGTTGTACTAATTTACAGTCCCACCAACAGTGTATAGGTGTTCCCTTTTCTCTGCAT CCTTACCAATATCTGTAATTTTTTGACTTTTTAATAATAGCCATTCTCATTTGTGTGAGATAAGGTCTCATTGTG CTGGATATATTCTGGATACATGGTTTGCAAATATTTTCTCCGGTTCTGCACGTTGTTCATTCTGTTGATGGTTTA 

## 3252/6881 FIGURE 3003

MAETSALPTGFGELEVLAVGMVLLVEALSGLSLNTLTIFSFCKTPELRTPCHLLVLSLALADSGISLNALVAATS SLLRVSHRRWPYGSDGCQAHGFQGFVTALASICSSAAIAWGRYHHYCTRSQLAWNSAVSLVLFVWLSSAFWAALP LLGWGHYDYEPLGTCCTLDYSKGDRNFTSFLFTMSFFNFAMPLFITITSYSLMEQKLGKSGHLQVNTTLPARTLL LGWGPYAILYLYAVIADVTSISPKLQMVPALIAKMVPTINAINYALGNEMVCRGIWQCLSPQKREKDRTK

GGGCAACCCGCGGGGACCCTTCCTCCCTAGTCGCGGGGAGTCTGAGAAAGCGCGCCTGTTTCGCGACCATCACG CCTGGGCTCGGCGACTCGGCCGCTTGCTGGGCTGGGCCGGGGACAGCCCGCCGCCGCCGCAGCC GGGGCTGGCATTGGCCGCCCGGCGCCACTACAGCGAGGCGGTGGCCGACCGCGAGGACGACCCCAACTTCTTCAA GATGGTGGAGGGCTTCTTCGATCGCGCGCCCAGCATCGTGGAGGACAAGCTGGTGGAGGACCTGAGGACCCGGGA GAGCGAGGAGCAGAACCGGGACCGGGCATCCTGCGGATCATCAAGCCCTGCAACCATGTGCTGAGTCT CACGCCCTGCAAGGGAGGTATCCGTTACAGCACTGATGTGAGTGTAGATGAAGTAAAAGCTTTGGCTTCTCTGAT GACATACAAGTGTGCAGTGGTTGATGTGCCGTTTGGGGGTGCTAAAGCTGGTGTTAAGATCAATCCCAAGAACTA TACTGATAATGAATTGGAAAAGATCACAAGGAGGTTCACCATGGAGCTAGCAAAAAAAGGGCTTTATTGGTCCTGG CATTGATGTGCCTGCTCCAGACATGAGCACAGGTGAGCGGGAGATGTCCTGGATCGCTGATACCTATGCCAGCAC CATAGGGCACTATGATATTAATGCACACGCCTGTGTTACTGGTAAACCCATCAGCCAAGGGGGGAATCCATGGACG CATCTCTGCTACTGGCCGTGGTGTCTTCCATGGGATTGAAAATTTCATCAATGAAGCTTCTTACATGAGCATTTT AGGAATGACACCAGGGTTTGGAGATAAAACATTTGTTGTTCAGGGATTTGGTAATGTGGGCCTACACTCTATGAG ATATTTACATCGTTTTGGTGCTAAATGTATTGCTGTTGGTGAGTCTGATGGGAGTATATGGAATCCAGATGGTAT TGACCCAAAGGAACTGGAAGACTTCAAATTGCAACATGGGTCCATTCTGGGCTTCCCCAAGGCAAAGCCCTATGA AGGAAGCATCTTGGAGGCCGACTGTGACATACTGATCCCAGCTGCCAGTGAGAAGCAGTTGACCAAATCCAACGC ACCCAGAGTCAAAGCCAAGATCATTGCTGAAGGTGCCAATGGGCCAACAACTCCAGAAGCTGACAAGATCTTCCT GGAGAGAAACATTATGGTTATTCCAGATCTCTACTTGAATGCTGGAGGAGTGACAGTATCTTACTTTGAGTGGCT GAAGAATCTAAATCATGTCAGCTATGGCCGTTTGACCTTCAAATATGAAAGGGATTCTAACTACCACTTGCTCAT GTCTGTTCAAGAGAGTTTAGAAAGAAAATTTGGAAAGCATGGTGGAACTATTCCCATTGTACCCACGGCAGAGTT  ${\tt CCAAGACAGGATATCGGGTGCATCTGAGAAAGACATCGTGCACTCTGGCTTGGCATACACAATGGAGCGTTCTGC}$ CAGGCAAATTATGCGCACAGCCATGAAGTATAACCTGGGATTGGACCTGAGAACAGCTGCCTATGTTAATGCCAT TGAGAAAGTCTTCAAAGTGTACAATGAAGCTGGTGTGACCTTCACATAGATGGATCATGGCTGACTTCCTCACTA TCCTCTCACATGTAACTTCTGCAGACCTATCACAAGTTTACATGTAACCACAGAAATCCCTTTCTCCTGACT ATCATGTACAAGCTGAGTGTGAAAGTAGAAATCACCTACACCAGAGAGCCATTTTGGTATTTTGCCTTTAAATAA AAAGCCTCCTTTATCTGGCTGTGCAGCCTTGCTCTGTGGCTTTTCCCAACACAATCAGTGCTAGTGCTGGGGAGG AACAGTCAAGAGCAGTCAGTTGCTTATTTTTTCTGGATGAGTCTGGGACACACTGTAACTTTAACACATTT AAGAAGTAGGTGTGTGGCCTTTTCAGAAGGTGGCATGGTCCTCAAGTGAGTTCTTAGTATTTTATATCAGCAAAA TAATTCAATTTTGCAGGTTGCAAACAAATATAAAACCTGTTTCTGTTTATGAATATTATTCTTTTAGAATAGAAT AAGTACATGCTGCTGTAATAAAATTGCCTTTAATCACTTAACAAGCCTAACCTTGACTCAAACAGTGAATGCCTA TGTCCAGCAGACATTAAAAGCCCTGTGGATAATTAAGTTATCTTCATACCTGCAAAATGGTGGAGGCTATTTTCA TTAAAACTGTCAGAATTTGCTTACCATAATTATGATACAGTCCAAAGAATGCAGTCACTTTTTATCATGTTAACT AATTGTTCTCTTTTGAAGATCTATGGTTGACTAATTAAACAATAATTCAAGTAGAGTGTCCCAGAAAAAAACCAC TTGGGCTCCCTGTTTGGAGTCTGGCTCGGCTCTGAGCATTGCCAATGGCCCCTACTCACCTGACTTTGTATCCTCT CCTTTTAGAGGCTTTGCATTCTGCACCCAGCTTCACTAACAGTGGGCTGAAAACATCCTTGGGTTGAGTGTTTCA TTTGGGAGTTATTTGGCCAGGGCCTTTTGAACAGTAGTGTCCCCATGAAGTGCTAGATAATATATGTGTAAGAGT CAGCTTTTTTTTTTTTTTAACTCTAACACCCTTCAGAAATTTCTAACTACTTTGTAACTGCATGGCTTAACCT 

## 3254/6881 FIGURE 3005

MYRYLGEALLLSRAGPAALGSASADSAALLGWARGQPAAAPQPGLALAARRHYSEAVADREDDPNFFKMVEGFFD
RGASIVEDKLVEDLRTRESEEQKRNRVRGILRIIKPCNHVLSLSFPIRRDDGSWEVIEGYRAQHSQHRTPCKGGI
RYSTDVSVDEVKALASLMTYKCAVVDVPFGGAKAGVKINPKNYTDNELEKITRRFTMELAKKGFIGPGIDVPAPD
MSTGEREMSWIADTYASTIGHYDINAHACVTGKPISQGGIHGRISATGRGVFHGIENFINEASYMSILGMTPGFG
DKTFVVQGFGNVGLHSMRYLHRFGAKCIAVGESDGSIWNPDGIDPKELEDFKLQHGSILGFPKAKPYEGSILEAD
CDILIPAASEKQLTKSNAPRVKAKIIAEGANGPTTPEADKIFLERNIMVIPDLYLNAGGVTVSYFEWLKNLNHVS
YGRLTFKYERDSNYHLLMSVQESLERKFGKHGGTIPIVPTAEFQDRISGASEKDIVHSGLAYTMERSARQIMRTA
MKYNLGLDLRTAAYVNAIEKVFKVYNEAGVTFT

ATGGGGGAGAATATCATTGTAGAAAATGGAAACAGTGTGGATCAAGGTAGAGTGGATCTCGTGCAGGGTCCCCTT
GGTGAACAGTGGCCATGTCCGCAACACTGGGTGCATTGGGACACCACGGTATGAACCTCATCATAGCAGCCAT
CACAAGGACAAGGCCATTAAGAAATTCGTCATTCAAAACATAGTGGAGGCCACAGCAGTCAGGGACATTTCTGAA
GCGAGCGTCTTTGATGCCTATGTGCGTCCCAAGCTGTATGTGAAGCTACATTACTGTGTCTTCACTTCTGTG
TCTACGCTTCTCTTTTACCTAA

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# 3256/6881 FIGURE 3007

 ${\tt MGENIIVENGNSVDQGRVDLVQGPLGEQWPCPQHWVHWDSTRYEPHHSSHHKDKAIKKFVIQNIVEATAVRDISE} \\ {\tt ASVFDAYVRPKLYVKLHYCVFTSAVSTLLFFT}$ 

GCAGCCCAGCCAAGCACTGTCAGGAATCCTGTGAAGCAGCTCCAGCTATGTGTGAAGAAGAGGACAGCACTGCCT TGGTGTGTGACAATGGCTCTGGGGCTCTGTAAGGCCGGCTTTGCTGGGGACGATGCTCCCAGGGCTGTTTTCCCAT CCATTGTGGGACGTCCCAGACATCAGGGGGTGATGGTGGGAATGGGACAAAAAGACAGCTACGTGGGTGACGAAG CACAGAGCAAAAGAGGAATCCTGACCCTGAAGTACCCGATAGAACATGGCATCATCACCAACTGGGACGACATGG AAAAGATCTGGCACCACTCTTTCTACAATGAGCTTCGTGTTGCCCCTGAAGAGCATCCCACCCTGCTCACGGAGG CACCCCTGAACCCCAAGGCCAACCGGGAGAAAATGACTCAAATTATGTTTGAGACTTTCAATGTCCCAGCCATGT ATGTGGCTATCCAGGCGGTGCTGTCTCTCTATGCCTCTGGACGCACAACTGGCATCGTGCTGGACTCTGGAGATG GAGATCTCACTGACTACCTCATGAAGATCCTGACTGAGCGTGGCTATTCCTTCGTTACTACTGCTGAGCGTGAGA TTGTCCGGGACATCAAGGAGAAACTGTGTTATGTAGCTCTGGACTTTGAAAATGAGATGGCCACTGCCGCATCCT CATCCTCCCTTGAGAAGAGTTACGAGTTGCCTGATGGGCAAGTGATCACCATCGGAAATGAACGTTTCCGCTGCC CAGAGACCCTGTTCCAGCCATCCTTCATCGGGATGGAGTCTGCTGGCATCCATGAAACCACCTACAACAGCATCA TGAAGTGTGATATTGACATCAGGAAGGACCTCTATGCTAACAATGTCCTATCAGGGGGCACCACTATGTACCCTG GCATTGCCGACCGAATGCAGAAGGAGATCACGGCCCTAGCACCAGCACCATGAAGATCAAGATCATTGCCCCTC  $\texttt{GCAAACAGGAATACGATGAAGCCGGGGCCTTCCATTGTCCACCGCAAATGCTTC} \underline{\textbf{TAA}} \texttt{AACACTTTCCTGCTCCTCT}$ GCTCTGACTCGTTACCTATGTGTTTTTTAATAAATCTGAAATAGGCTACTGGTAA

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# 3258/6881 FIGURE 3009

MCEEEDSTALVCDNGSGLCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEH GIITNWDDMEKIWHHSFYNELRVAPEEHPTLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRT TGIVLDSGDGVTHNVPIYEGYALPHAIMRLDLAGRDLTDYLMKILTERGYSFVTTAEREIVRDIKEKLCYVALDF ENEMATAASSSSLEKSYELPDGQVITIGNERFRCPETLFQPSFIGMESAGIHETTYNSIMKCDIDIRKDLYANNV LSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDEAGPSIVHRK CF

WO 2004/030615 PCT/US2003/028547

## 3259/6881 FIGURE 3010

TTCAGCATTTATTGGTGGCAGAAGAGAAGATTTCTGAAGAGTGCAGCTGCCTGAACCGAGCCCTGCCGAACAGC  $\tt TGAGAATTGCACTGCAACC\underline{ATG} AGTGAGAACAATAAGAATTCCTTGGAGAGCAGCCTACGGCAACTAAAATGCCA$ TTTCACCTGGAACTTGATGGAGGGAGAAAACTCCTTGGATGATTTTGAAGACAAAGTATTTTACCGGACTGAGTT TCAGAATCGTGAATTCAAAGCCACAATGTGCAACCTACTGGCCTATCTAAAGCACCTCAAAGGGCAAAACGAGGC AGCCCTGGAATGCTTACGTAAAGCTGAAGAGTTAATCCAGCAAGAGCATGCTGACCAGGCAGAAATCAGAAGTCT GGTCACCTGGGGAAACTATGCCTGGGTCTACTATCACATGGGCCGACTCTCAGACGTTCAGATTTATGTAGACAA GGTGAAACATGTCTGTGAGAAGTTTTCCAGTCCCTATAGAATTGAGAGTCCAGAGCTTGACTGTGAGGAAGGGTG GACACGGTTAAAGTGTGGAGGAAACCAAAATGAAAGAGCGAAGGTGTGCTTTGAGAAGGCTCTGGAAAAGAAGCC AAAGAACCCAGAATTCACCTCTGGACTGGCAATAGCAAGCTACCGTCTGGACAACTGGCCACCATCTCAGAACGC CATTGACCCTCTGAGGCAAGCCATTCGGCTGAATCCTGACAACCAGTACCTTAAAGTCCTCCTGGCTCTGAAGCT AGGTGTAACAGATGTTCTTCGCAGTGCAGCCAAGTTTTATCGAAGAAAAGATGAGCCAGACAAAGCGATTGAACT GCTTAAAAAGGCTTTAGAATACATACCAAACAATGCCTACCTGCATTGCCAAATTGGGTGCTGCTATAGGGCAAA TGTGGCTCATCTGAAGAAAGCTGATGAGGCCAATGATAATCTCTTCCGTGTCTGTTCCATTCTTGCCAGCCTCCA TGCTCTAGCAGATCAGTATGAAGACGCAGAGTATTACTTCCAAAAGGAATTCAGTAAAGAGCTTACTCCTGTAGC GAAACAACTGCTCCATCTGCGGTATGGCAACTTTCAGCTGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA CAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCCTTCAGGAGCTGAATGA AAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG GAATGGGGAA**TGA**AGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGGGT TATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCCAAGGAGTTCTGGGAGAGGGGACCAGATTGGGGGGTAGG TCCACGGGCTTGGTGATAGAATTATTTCTCGATTGACTTCTTGAGTGCAATTTGAACTGTAACATTTGCTTAGTC ACCTTTAGTGGAGTAATCTACTGGGCTTGTTTCTATATTTATATAAAGCAGCCAAATCCTTCATGTAATATTGAA GTCCATTTTTGCAATGTTGTTCCATACTTGGAGTCATTTTGCATCCCATAGAGGTTAGTCCTGCATAGCCAGTAA TGTGCTAAGTTCATCCAAAAGCTGGCGGACCAAAGTCTAAATAGGGCTCAGTATCCCCCATCGCTTATCTCTGCC TCCTTCCTCCTCCTCCCAGTCTATCATCAACCTTGAGTATTCTACACAATGTGAATTCAAGTGCCTGATTAATT GAGGTGGCAACATAGTTTGAGACGAGGGCAGAGAACAGGAAGATACATAGCTAGAAGCGACGGGTACAAAAAGCA ATGTGTACAAGAAGACTTTCAGCAAGTATACAGAGAGTTCACCTCTACTCTGCCCTCCTCATAGTCATAATGTAG CAAGTAAAGAATGAGAATGGATTCTGTACAATACACTAGAAACCAACATAATGTATTTCTTTAAAACCTGTGTGA AAAAA

MSENNKNSLESSLRQLKCHFTWNLMEGENSLDDFEDKVFYRTEFQNREFKATMCNLLAYLKHLKGQNEAALECLR KAEELIQQEHADQAEIRSLVTWGNYAWVYYHMGRLSDVQIYVDKVKHVCEKFSSPYRIESPELDCEEGWTRLKCG GNQNERAKVCFEKALEKKPKNPEFTSGLAIASYRLDNWPPSQNAIDPLRQAIRLNPDNQYLKVLLALKLHKMREE GEEEGEGEKLVEEALEKAPGVTDVLRSAAKFYRRKDEPDKAIELLKKALEYIPNNAYLHCQIGCCYRAKVFQVMN LRENGMYGKRKLLELIGHAVAHLKKADEANDNLFRVCSILASLHALADQYEDAEYYFQKEFSKELTPVAKQLLHL RYGNFQLYQMKCEDKAIHHFIEGVKINQKSREKEKMKDKLQKIAKMRLSKNGADSEALHVLAFLQELNEKMQQAD EDSERGLESGSLIPSASSWNGE

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#### 3262/6881 FIGURE 3013A

CTTCTCTCCCAGGGCGGTGCGACCCGGAGCTCCAGCGCCCGAGTCTCCACTTCGTTTGCTGAAACTTGCTTTCTA CCAGCTAAGAACCATGCTGCGAGTGATTGTGGAATCTGCCAGCAATATCCCTAAAACGAAATTTGGCAAGCCGGA GAATGAGATTTTGGAGTTTGACTTGAGGGGTATACCACTGGACTTTTCATCTTCCCTTGGGATTATTGTGAAAGA TTTTGAGACAATTGGACAAAATAAATTAATTGGCACGGCGACTGTAGCCCTGAAGGACCTGACTGGTGACCAGAG CAGATCCCTGCCGTACAAGCTGATCTCCCTGCTAAATGAAAAAGGGCAAGATACTGGGGCCACCATTGACTTGGT GATCGGCTATGATCCGCCTTCTGCTCCACATCCAAATGACCTGAGCGGGCCCAGCGTGCCAGGCATGGGAGGAGA TGGGGAAGAAGATGAAGGTGAAGACAGGTTGGACAATGCAGTCAGGGGCCCTGGGCCCAAGGGGCCCAGTTGG GACGGTGTCGGAAGCTCAGCTTGCTCGGAGGCTCACCAAAGTAAAGAACAGCCGGCGGATGCTGTCAAATAAGCC ACAGGACTTCCAGATCCGCGTCCGAGTGATTGAGGGCCGACAGTTAAGTGGTAACAACATAAGGCCTGTGGTCAA CTACAATGTCAACATGACCCCTTCTGAATTGATGGATGAGATCATCAGCATCCGGGTTTATAATTCTCACTCTCT GAGAAAGTGGCTTCTTCTCAATGACCCGGAAGATACCAGTTCAGGTTCTAAAGGTTATATGAAAGTCAGCATGTT TGTCCTGGGAACCGGAGATGAGCCTCCTCCTGAGAGACGAGATCGTGATAATGACAGTGATGATGTGGAGAGTAA TTTGTTACTCCCTGCTGGCATTGCCCTCCGGTGGGTGACCTTCTTGCTGAAAATCTACCGAGCTGAGGACATCCC CCAGATGGATGATGCCTTCTCACAGACAGTAAAGGAAATATTTGGAGGCAATGCAGATAAGAAAAATCTCGTGGA TCCTTTTGTAGAAGTTTCCTTTGCTGGAAAAAAGĠTTTGTACAAACATAATTGAGAAAAATGCAAACCCAGAGTG GAATCAGGTCGTCAATCTTCAGATCAAGTTTCCTTCAGTGTGTGAAAAAATAAAACTAACAATATATGACTGGGA CCGTCTTACTAAAAATGATGTAGTTGGAACAACATATCTACACCTCTCTAAAATTGCTGCCTCTGGTGGGGAAGT GGAAGATTTCTCATCTTCGGGAACTGGGGCTGCATCATATACAGTAAACACAGGAGAAACAGAGGTAGGCTTTGT TCCAACGTTTGGACCTTGTTACCTGAATCTTTATGGAAGCCCCAGGGAGTACACGGGATTCCCAGACCCCTATGA TGAGCTGAATACTGGAAAGGGGGAAGGAGTTGCCTACAGAGGCAGGATCTTGGTTGAATTAGCCACTTTTCTTGA GAAGACACCACCAGATAAAAAGCTTGAGCCCATTTCAAATGATGACCTGCTGGTTGTTGAGAAATACCAGCGAAG GCGGAAGTACAGCCTGTCTGCCGTGTTTCATTCAGCCACCATGTTGCAAGATGTTGGTGAGGCCATTCAGTTTGA AGTCAGCATTGGGAACTATGGCAACAAGTTTGACACCACCTGTAAGCCTTTGGCATCAACAACTCAGTACAGCCG TGCTGTATTTGATGGCAACTACTATTATTACTTGCCTTGGGCCCACACCAAGCCAGTTGTTACCCTGACTTCATA TGAAGTTATAGAAGACACGAGATACACGTTGCCTCTCACAGAAGGAAAAGCCAACGTCACAGTTCTCGATACTCA GATCCGAAAGCTGCGGTCCAGGTCTCTCCCCAAATACATGAGGCGGCTGTGAGGATGAGGTCGGAAGCCACAGA CTTGTACTCCACCAGTGGTGAGAATGCATCTGGAAAATACTGTGGGAAAACCCAAACCATCTTTCTGAAGTATCC ACAGGAGAAAAACAACGGGCCAAAGGTGCCTGTGGAGTTGCGAGTGAACATCTGGCTAGGCTTAAGTGCTGTGGA GAAGAAGTTTAACAGCTTCGCAGAAGGAACTTTCACCGTCTTTGCTGAAATGTATGAAAATCAAGCTCTCATGTT TGGAAAATGGGGTACTTCTGGATTAGTAGGACGTCATAAGTTTTCTGATGTCACAGGAAAAATAAAACTCAAGAG GGAATTTTTTCTGCCTCCAAAAGGCTGGGAATGGGAAGGAGTGGATAGTTGATCCTGAAAGAAGCTTGCTGAC TGAGGCAGATGCAGGTCACACGGAGTTCACTGATGAAGTCTATCAGAACGAGAGCCGCTACCCCGGGGGCGACTG GAAGCCGGCCGAGGACACCTACACGGATGCGAACGGCGATAAAGCAGCATCACCCAGCGAGTTGACTTGTCCTCC AGGTTGGGAATGGGATGATGCATGGTCTTATGACATAAATCGAGCGGTGGATGAGAAAGGCTGGGAATATGG AATCACCATTCCTCCTGATCATAAGCCCAAATCCTGGGTTGCAGCAGAAAAATGTACCACACTCATAGACGGCG AAGGCTGGTCCGAAAACGCAAGAAAGATTTAACACAGACTGCTTCAAGCACCGCAAGGGCCATGGAGGAATTGCA AGACCAAGAGGGCTGGGAATATGCTTCTCTAATTGGCTGGAAATTTCACTGGAAACAACGTAGTTCAGATACCTT CCGCCGCAGACGCTGGAGGAGAAAAATGGCTCCTTCAGAAACACATGGTGCAGCTGCCATCTTTAAACTTGAAGG TGCCCTTGGGGCAGACACTACCGAAGATGGGGATGAGAAGACCTGGAGAAACAGAAGCACAGTGCCACCACTGT GTTCGGAGCAAACACCCCCATTGTTTCCTGCAATTTTGACAGAGTCTACATCTACCATCTGCGCTGCTATGTCTA TCAAGCCAGAAACCTCTTGGCTTTAGATAAGGATAGCTTTTCAGATCCATATGCTCATATCTGTTTCCTCCATCG

## 3263/6881 FIGURE 3013B

GAGCAAAACCACTGAGATCATCCATTCAACCCTGAATCCCACGTGGGACCAAACAATTATATTCGATGAAGTTGA AATCTATGGGGAACCCCAAACAGTTCTACAGAATCCACCCAAAGTTATCATGGAACTTTTTGACAATGACCAAGT GGGCAAAGATGAATTTTTAGGACGAAGCATTTTCTCTCCTGTGGTGAAACTGAACTCAGAAATGGACATCACACC CAAACTTCTCTGGCACCCAGTAATGAATGGAGACAAAGCCTGCGGGGATGTTCTTGTAACTGCAGAGCTGATTCT GAGGGGCAAGGATGGCTCCAACCTTCCCATTCTTCCCCCTCAAAGGGCGCCCAAATCTATACATGGTCCCCCAGGG GATCAGGCCTGTGGTCCAGCTCACTGCCATTGAGATTCTAGCTTGGGGCTTAAGAAATATGAAAAACTTCCAGAT GGCTTCTATCACATCCCCCAGTCTTGTTGTGGAGTGTGGAGGAGAAAGGGTGGAATCGGTGGTGATCAAAAACCT TAAGAAGACACCCAACTTTCCAAGTTCTGTTCTCTTCATGAAAGTGTTCTTGCCCAAGGAGGAATTGTACATGCC CCTGGACCGCTTTCGCTGTGACCCTTATGCAGGGAAAGAGGACATCGTCCCACAGCTCAAAGCCTCCCTTCTGTC TGCCCCACCATGCCGGGACATCGTTATCGAAATGGAAGACACCAAACCATTACTGGCTTCTAAGCTGACAGAAAA GGAGGAAGAAATCGTGGACTGGTGGAGTAAATTTTATGCTTCCTCAGGGGAACATGAAAAATGCGGACAGTATAT TCAGAAAGGCTATTCCAAGCTCAAGATATATAATTGTGAACTAGAAAATGTAGCAGAATTTGAGGGCCTGACAGA CTTCTCAGATACGTTCAAGTTGTACCGAGGCAAGTCGGATGAAAATGAAGATCCTTCTGTGGTTGGAGAGTTTAA GGGCTCCTTTCGGATCTACCCTCTGCCGGATGACCCCAGCGTGCCAGCCCCTCCCAGACAGTTTCGGGAATTACC TGACAGCGTCCCACAGGAATGCACGGTTAGGATTTACATTGTTCGAGGCTTAGAGCTCCAGCCCCAGGACAACAA TGGCCTGTGTGACCCTTACATAAAATAACACTGGGCAAAAAAGTCATTGAAGACCGAGATCACTACATTCCCAA CACTCTCAACCCAGTCTTTGGCAGGATGTACGAACTGAGCTGCTACTTACCTCAAGAAAAAGACCTGAAAATTTC TGTCTATGATTATGACACCTTTACCCGGGATGAAAAAGTAGGAGAAACAATTATTGATCTGGAAAACCGATTCCT  ${\tt TTCCCGCTTTGGGTCCCACTGCGGCATACCAGAGGAGTACTGTGTTTCTGGAGTCAATACCTGGCGAGATCAACT}$ GAGACCAACACAGCTGCTTCAAAATGTCGCCAGATTCAAAGGCTTCCCACAACCCATCCTTTCCGAAGATGGGAG TAGAATCAGATATGGAGGACGAGACTACAGCTTGGATGAATTTGAAGCCAACAAAATCCTGCACCAGCACCTCGG GGCCCCTGAAGAGCGGCTTGCTCTTCACATCCTCAGGACTCAGGGGCTGGTCCCTGAGCACGTGGAAACAAGGAC GGGGCCACCAGGCCCTCCTTTCAACATCACACCCCGGAAAGCCAAGAAATACTACCTGCGTGTGATCATCTGGAA CACCAAGGACGTTATCTTGGACGAGAAAAGCATCACAGGAGAGGAAATGAGTGACATCTACGTCAAAGGCTGGAT TCCTGGCAATGAAGAAAACAAACAGAAACAGATGTCCATTACAGATCTTTGGATGGTGAAGGGAATTTTAACTG GCGATTTGTTTTCCCGTTTGACTACCTTCCAGCCGAACAACTCTGTATCGTTGCGAAAAAAAGAGCATTTCTGGAG TATTGACCAAACGGAATTTCGAATCCCACCCAGGCTGATCATTCAGATATGGGACAATGACAAGTTTTCTCTGGA TGACTACTTGGGTTTCCTAGAACTTGACTTGCGTCACACGATCATTCCTGCAAAATCACCAGAGAAATGCAGGTT GAAAGGATGGTGGCCATGCTACGCAGAAAAGATGGCGCCCGCGTAATGGCTGGGAAAGTGGAGATGACATTGGA GGACTTACCAAATCGACCAGAAACCTCCTTCCTCTGGTTCACCAACCCATGCAAGACCATGAAGTTCATCGTGTG GCGCCGCTTTAAGTGGGTCATCATCGGCTTGCTGTTCCTGCTTATCCTGCTGCTCTTCGTGGCCGTGCTCCTCTA  $\tt CTCTTTGCCGAACTATTTGTCAATGAAGATTGTAAAGCCAAATGTG\underline{TAAC} CAAAGGCAAAGGCTTCATTTCAAGAG$ TCATCCAGCAATGAGAGAATCCTGCCTCTGTAGACCAACATCCAGTGTGATTTTGTGTCTGAGACCACACCCCAG TAGCAGGTTACGCCATGTCACCGAGCCCCATTGATTCCCAGAGGGTCTTAGTCCTGGAAAGTCAGGCCAACAAGC AACGTTTGCATCATGTTATCTCTTAAGTATTAAAAGTTTTATTTTCTAAAGTTTAAATCATGTTTTTCAAAATAT TTTTCAAGGTGGCTGGTTCCATTTAAAAATCATCTTTTTATATGTGTCTTCGGTTCTAGACTTCAGCTTTTGGAA ATTGCTAAATAGAATTCAAAAATCTCTGCATCCTGAGGTGATATACTTCATATTTGTAATCAACTGAAAGAGCTG AAAA

MLRVIVESASNIPKTKFGKPDPIVSVIFKDEKKKTKKVDNELNPVWNEILEFDLRGIPLDFSSSLGIIVKDFETI GQNKLIGTATVALKDLTGDQSRSLPYKLISLLNEKGQDTGATIDLVIGYDPPSAPHPNDLSGPSVPGMGGDGEED EGDEDRLDNAVRGPGPKGPVGTVSEAQLARRLTKVKNSRRMLSNKPQDFQIRVRVIEGRQLSGNNIRPVVKVHVC GQTHRTRIKRGNNPFFDELFFYNVNMTPSELMDEIISIRVYNSHSLRADCLMGEFKIDVGFVYDEPGHAVMRKWL LLNDPEDTSSGSKGYMKVSMFVLGTGDEPPPERRDRDNDSDDVESNLLLPAGIALRWVTFLLKIYRAEDIPQMDD AFSQTVKE1FGGNADKKNLVDPFVEVSFAGKKVCTN11EKNANPEWNQVVNLQ1KFPSVCEK1KLT1YDWDRLTK NDVVGTTYLHLSKIAASGGEVEDFSSSGTGAASYTVNTGETEVGFVPTFGPCYLNLYGSPREYTGFPDPYDELNT GKGEGVAYRGRILVELATFLEKTPPDKKLEPISNDDLLVVEKYQRRRKYSLSAVFHSATMLQDVGEAIQFEVSIG NYGNKFDTTCKPLASTTQYSRAVFDGNYYYYLPWAHTKPVVTLTSYWEDISHRLDAVNTLLAMAERLQTNIEALK SGIQGKIPANQLAELWLKLIDEVIEDTRYTLPLTEGKANVTVLDTQIRKLRSRSLSQIHEAAVRMRSEATDVKST LAEIEDWLDKLMQLTEEPQNSMPDIIIWMIRGEKRLAYARIPAHQVLYSTSGENASGKYCGKTQTIFLKYPQEKN NGPKVPVELRVNIWLGLSAVEKKFNSFAEGTFTVFAEMYENQALMFGKWGTSGLVGRHKFSDVTGKIKLKREFFL PPKGWEWEGEWIVDPERSLLTEADAGHTEFTDEVYQNESRYPGGDWKPAEDTYTDANGDKAASPSELTCPPGWEW EDDAWSYDINRAVDEKGWEYGITIPPDHKPKSWVAAEKMYHTHRRRRLVRKRKKDLTQTASSTARAMEELQDQEG WEYASLIGWKFHWKQRSSDTFRRRWRRKMAPSETHGAAAIFKLEGALGADTTEDGDEKSLEKQKHSATTVFGAN TPIVSCNFDRVYIYHLRCYVYQARNLLALDKDSFSDPYAHICFLHRSKTTEIIHSTLNPTWDQTIIFDEVEIYGE PQTVLQNPPKVIMELFDNDQVGKDEFLGRSIFSPVVKLNSEMDITPKLLWHPVMNGDKACGDVLVTAELILRGKD GSNLPILPPQRAPNLYMVPQGIRPVVQLTAIEILAWGLRNMKNFQMASITSPSLVVECGGERVESVVIKNLKKTP NFPSSVLFMKVFLPKEELYMPPLVIKVIDHRQFGRKPVVGQCTIERLDRFRCDPYAGKEDIVPQLKASLLSAPPC RDIVIEMEDTKPLLASKLTEKEEEIVDWWSKFYASSGEHEKCGQYIQKGYSKLKIYNCELENVAEFEGLTDFSDT FKLYRGKSDENEDPSVVGEFKGSFRIYPLPDDPSVPAPPRQFRELPDSVPQECTVRIYIVRGLELQPQDNNGLCD PYIKITLGKKVIEDRDHYIPNTLNPVFGRMYELSCYLPQEKDLKISVYDYDTFTRDEKVGETIIDLENRFLSRFG SHCGIPEEYCVSGVNTWRDQLRPTQLLQNVARFKGFPQPILSEDGSRIRYGGRDYSLDEFEANKILHQHLGAPEE RLALHILRTQGLVPEHVETRTLHSTFQPNISQGKLQMWVDVFPKSLGPPGPPFNITPRKAKKYYLRVIIWNTKDV ILDEKSITGEEMSDIYVKGWIPGNEENKQKTDVHYRSLDGEGNFNWRFVFPFDYLPAEQLCIVAKKEHFWSIDQT EFRIPPRLIIQIWDNDKFSLDDYLGFLELDLRHTIIPAKSPEKCRLDMIPDLKAMNPLKAKTASLFEQKSMKGWW PCYAEKDGARVMAGKVEMTLEILNEKEADERPAGKGRDEPNMNPKLDLPNRPETSFLWFTNPCKTMKFIVWRRFK WVIIGLLFLLILLLFVAVLLYSLPNYLSMKIVKPNV

ACACAGTTTGTCATTCAAAGACCCGCAGCAACCCTGAGAACAACGTGGGCCTTATCACACTGGATAATGACTGTG AAGTGCTGACCACACTCACCCCAGACACTGGCCGTATCCTGTCCAAGCTACATACTGTCCAACCCAAGGGCAAGA TCACCTTCTGCATGGGCATCCACGTGGCCCATCTGGCTCTGAAGCACCGACAAGGCAACAATCACAAGATCCGCA TCATTGCCTTTGTGGGAAACCCGGTGGAGGACAATGAGAAGAATCTGGTGAAACTGGCTAAATGCCTCAAGAAGG CGTTGAATGGCAAAGATGGAACCGGTTCTCATCTGGTGACAGTGCCTCCTGGGCCCAGTTTGGCTGATGCTCTCA TCAGTTTTCCGATTTTGGCTGGTGAAGGTGGTGCCATGATGGGTCTTGGTGCCAGTGACTTTGAATTTGGAGTAG ATCCCAGTGCTGATCCTGAGCTGGCCTTGGTCCTTCGTGTATTTATGGAAGAGCAGCGGCAGCGGCAGGAGGAGG AGGCCCGGCAGGCAGCTGCAGCTTCTGCTGCTGAGGCCGGGATTGCTACGACTGGGACTGAAGACTCAGACGATG  ${\tt CCCTGCTGAAGATGACCATCAGCCAGCAAGAGTTTGGCCACACTGGGCTTCCTGACCTAAGCAGTATGACTGAGG}$ AAGAGAAGATTGTTTGTGCCATGCAGATGTCCCTGCAGGGAGCAGAGTTTGGCCTGGCAGAATCAGCAGACATTG  $\tt ATGCCAGCCATGGACACATCTGAGCCAGCCAAGGAGGAGGATGATTACGACGTGATGCAAGACCCTGAGT$ TCCTTCAGAGTGTCCTAGAGAACCTCCCAGGTGTGGATCCCAACAATGAAGCCATTCGAAATGCTGTGGGCTCCC TAGCTGAGCCTGCTCAGGGGACTGCATGGGAAGCACGGAATATAGGGTTAGATGTGTTATCTGTAATCATTAT AGCCTAAATAAAGCTTGGCAA

GGGGATTTGGCTAGAAGGCTGGGCCGGCAGCGGTTGTGAGGAGTTAGCTCGCGGCATTGCAGGCTCTGAGAGGAG GGGACCCGGTTCCCGGGTGAGTGTCCAGGCATGCCAGCGGAACGGCCCGCGGGCAGCGGCGCTCGGAGGCTCCA GCAATGGTTGAACAACTGGACACTGCTGTGATTACCCCGGCCATGCTAGAAGAGGAAGAACAGCTTGAAGCTGCT GGACTAGAGAGAGAGCGGAAGATGCTGGAAAAGGCTCGCATGTCTTGGGATAGAGAGTCGACAGAAATTCGGTAC CGTAGACTTCAACATTTGCTTGAAAAAAGCAATATATACTCCAAATTTTTATTGACGAAAATGGAACAGCAACAA TTAGAGGAACAGAAGAAGAAAAATTGGAGAGAAAAAAGGAGTCTTTAAAAGTTAAAAAGGGTAAAAATTCA GTTAGGCAGAATACTAAATTCTTTTTTGACCCAGTCCGGAAGTGTAATGGTCAGCCAGTACCTTTTCAACAACCA AAGCACTTCACTGGAGGAGTGATGCGATGGTACCAAGTAGAAGGCATGGAATGGCTTAGGATGCTTTGGGAAAAT GGAATTAATGGCATTTTAGCAGATGAAATGGGATTGGGTAAGACAGTTCAGTGCATTGCTACTATTGCATTGATG ATTCAGAGAGGAGTACCAGGACCTTTTCTTGTCTGTGGCCCTTTGTCTACACTTCCTAACTGGATGGCTGAATTC AAAAGATTTACACCAGATATCCCTACAATGTTATATCATGGAACCCAGGAGGAACGTCAAAAATTGGTAAGAAAT ATTTACAAACGGAAAGGGACTTTGCAGATTCATCCTGTGGTAATCACGTCATTTGAAATAGCCATGAGAGACCGA AATGCGTTACAGCATTGCTATTGGAAATACTTAATAGTAGATGAAGGACACAGGATTAAGAATATGAAGTGCCGT CTAATCAGGGAGTTAAAACGATTCAATGCTGATAACAAACTTCTTTTGACTGGTACTCCCTTGCAAAACAATTTA TCAGAACTTTGGTCATTGCTAAACTTTTTGTTGCCAGATGTATTTGATGACTTGAAAAGCTTTGAGTCTTGGTTT CACCAGATTTTAACACCTTTCTTATTGAGAAGACTGAAGTCTGATGTTGCTCTTGAAGTTCCTCCTAAACGAGAA GTAGTCGTTTATGCTCCACTTTCAAAGAAGCAGGAGATCTTTTATACAGCCATTGTGAACCGTACAATTGCAAAC ATGTTTGGATCCAGTGAGAAAGAAACAATTGAGTTAAGTCCTACTGGTCGACCAAAACGACGAACTAGAAAATCA ATAAATTACAGCAAAATAGATGATTTCCCTAATGAATTGGAAAAACTGATCAGTCAAATACAGCCAGAGGTGGAC CGAGAAAGAGCTGTTGTGGAAGTGAATATCCCTGTAGAATCTGAAGTTAATCTGAAGCTGCAGAATATAATGATG CTACTTCGTAAATGTTGTAATCATCCATATTTGATTGAATATCCTATAGACCCTGTTACACAAGAATTTAAGATC CACAAGGTGCTGCTTTTTCACAAATGACAAGCATGTTGGACATTTTGATGGATTACTGCCATCTCAGAGATTTC GAGGTGTTTATCTTCTTAGTGAGTACACGAGCTGGTGGCCTGGGCATTAATCTGACTGCAGCAGATACAGTTATC ATTTATGATAGTGATTGGAACCCCCAGTCGGATCTTCAGGCCCAGGATAGATGTCATAGAATTGGTCAGACAAAG CCAGTTGTTGTTTATCGCCTTGTTACAGCAAATACTATCGATCAGAAAATTGTGGAAAGAGCAGCTGCTAAAAGG AAACTGGAAAAGTTGATCATCCATAAAAATCATTTCAAAGGTGGTCAGTCTGGATTAAATCTGTCTAAGAATTTC GGAGCTCAAGAATAGCTTTTAAAAGTTCTTATTTACATCTAGTGATTTCCCTGTATTGGGTTTGAAATACTGATT GTCCACTTCACCTTTTTTATTATCAGTTGACATGTAACTAGTACCATGCGTACTTAAATAGATGGTAATTTTC TGAGCCTTACCAAGAACAAAGAAGTATCCATATTAAGTTTAGATTTTCAGTTAATTTTTGAGACTGAGTAGTATT CTTGGATACAGGCTGATGTGTACTTAACCACTTCCAGATTTATACAGTCTTCCTGTGGAAGTTTAGTAAATGTCT TTTTCCCTCCTTTCTTCTAGTAATGCAGTTCATGGGCTTTAGGTACTTCAGTTATGAAGTAGGCTTTTCATGGGG AGAGATTGGGATTATGCTCTCTGTTGTTTAAGAAACTGTTTGATTTTAGAGTCTATTTCTATGAGATAGTTTACC **AAATAAATGTTCCTTATAAG** 

GCCCGCGCCGCCGCTCTTTCTCCGACAGCTGCCGGGGGTGCCCTGCAAGCTGTTCCGCGCGTCCTGCCCGTCT GTCCCCGCGGGTCGTCGCCCGCCACAGCCGCCCCATGACCACCCAGCAGATAGACCTCCAGGGCCCGGGGCCGTG GGGCTTCCGCCTCGTGGGCGGCAAGGACTTCGAGCAGCCTCTCGCCATTTCCCGGGTCACTCCTGGAAGCAAGGC GGCTCTAGCTAATTTATGTATTGGAGATGTAATCACAGCCATTGATGGGGAAAATACTAGCAATATGACACACTT GGAAGCTCAGAACAGAATCAAAGGCTGCACAGACAACTTGACTCTCACTGTAGCCAGATCTGAACATAAAGTCTG GTCTCCTCTGGTGACGGAGGAAGCGAAGCGTCATCCATACAAGATGAATTTAGCCTCTGAACCCCAGGAGGTCCT GCACATAGGAAGCGCCCACAACCGAAGTGCCATGCCCTTTACCGCCTCGCCTCCAGCACTACTGCCAGGGT CATCACAAACCAGTACAACAACCCAGCTGGCCTCTACTCTTCTGAAAATATCTCCAACTTCAACAATGCCCTGGA GTCAAAGACTGCTGCCAGCGGGGTGGAGGCGAACAGCAGCCCTTAGACCATGCTCAGCCTCCAAGCAGCCTTGT CATCGACAAGAATCTGAAGTTTACAAGATGCTTCAGGAGAAACAGGAGTTGAATGAGCCCCCGAAACAGTCCAC GTCTTTCTTGGTTTTGCAGGAAATCCTGGAGTCTGAAGAAAAAGGGGATCCCAACAAGCCCTCAGGATTCAGAAG TGTTAAAGCTCCTGTCACTAAAGTGGCTGCGTCGATTGGAAATGCTCAGAAGTTGCCTATGTGTGACAAATGTGG TGGCACCAACCTGAAACAGAAGGGCCATTTCTTTGTGGAGGATCAAATCTACTGTGAGAAGCATGCCCGGGAGCG  ${\tt AGTCACCACCTGAGGGTTATGAAGTGGTCACTGTGTTCCCCAAG{\color{red}{\bf TGA}}GCCAGCAGATCTGACCACTGTTCTCC}$ TTTTCCCTCTGCTTGTAAAACATTGAGTCCCCTCCCTGCCTTGGTTAATTGACTCACACCAGCTGTGCGATGCCC GCTTTTACAATTAAAGGAAAACTGTTTTGTTCAGTGTCACCTTGTCAGCAACACTGTGTCCCTTCGCCCCACCGT  ${\tt TCTTCTCTGCTGCATTTGGACATCAGCCAAATTTGAACCCAATCAAATATAACGTGTCTGACACTGATTTTGTTT}$ TTACTCAATAAATGTATAGACTACAAAAAAAAAAAAA

MTTQQIDLQGPGPWGFRLVGGKDFEQPLAISRVTPGSKAALANLCIGDVITAIDGENTSNMTHLEAQNRIKGCTD NLTLTVARSEHKVWSPLVTEEGKRHPYKMNLASEPQEVLHIGSAHNRSAMPFTASPASSTTARVITNQYNNPAGL YSSENISNFNNALESKTAASGVEANSRPLDHAQPPSSLVIDKESEVYKMLQEKQELNEPPKQSTSFLVLQEILES EEKGDPNKPSGFRSVKAPVTKVAASIGNAQKLPMCDKCGTGIVGVFVKLRDRHRHPECYVCTDCGTNLKQKGHFF VEDQIYCEKHARERVTPPEGYEVVTVFPK

#### 3270/6881 FIGURE 3020A

ATTCTGGCTGTGACTCAGTCACTGACACTGAGCCTGAGGACGAGAAGGTTGTTTCCTACTCGAAGCAGCAGCACACC TGCCGACGGTGACTTCACCTGGGAACCTGATGGTGGTGCAGCCGGACCGCATTCGCTGTGGGGCAGAAACCACTG  ${\tt TCTATGTTATTGTGAGATGTAAGCTGGATGACAGGGTGGCGACAGAAGCAGAGTTTTCTCCTGAGGATTCTCCCT}$ CTGTAAGGATGGAAGCCAAGGTGGAGAATGAGTACACCATTTCAGTGAAGGCTCCCAACCTTTCATCTGGGAACG  $\tt TTTCTCTGAAGATATTCTGGAGACTTAGTGGTGTGTGAAACCGTTATCAGCTATTATACTGACATGGAAGAAA$ TTGGGAATTTATTGTCCAATGCCGCGAATCCTGTGGAATTCATGTGTCAGGCCTTTAAAATTGTGCCCTACAACA CAGAGACCCTTGATAAACTGCTAACCGAATCCCTGAAGAACAATATCCCTGCAAGCGGACTGCACCTCTTTGGAA TCAACCAGCTGGAAGAAGAAGATATGATGACAAATCAGAGGGATGAAGAGCTGCCCACCCTGTTGCATTTTGCTG CGAAGTATGGACTGAAGAACCTCACTGCCTTGTTGCTCACCTGCCCAGGAGCCCTGCAGGCGTACAGCGTGGCCA ACAAGCATGGCCACTACCCCAACACCATCGCTGAGAAACACGGCTTCAGGGGACCTGCGGCAGTTCATCGACGAGT ATGTGGAAACGGTGGACATGCTCAAGAGTCACATTAAAGAGGAACTGATGCACGGGGAGGAGGCTGATGCTGTGT ATGAGTCCATGGCTGCCTTTGTCCCAGCTGCCACTGAAGACCTCTATGTTGAAATGCTTCAGGCCAGTACATCTA ACCCAATCCCTGGAGATGGTTTCTCTCGGGCCACTAAGGACTCTATGATCCGCAAGTTTTTAGAAGGCAACAGCA TGGGAATGACCAATCTGGAGAGAGATCAGTGCCATCTTGGTCAGGAAGAAGATGTTTATCACACGGTGGATGACG ATGAGGCCTTTTCTGTGGACCTGGCCAGCAGGCCCCCTGTCCCAGTGCCCAGACCAGAGACCACTGCTCCTGGTG CTCACCAGCTGCCTGACAACGAACCATACATTTTTAAAGTTTTTGCAGAAAAAAGTCAAGAGCGGCCTGGGAATT TCTACGTTTCCTCAGAGAGCATCAGGAAAGGGCCCCCGTCAGACCATGGAGGGACAGGCCCCAGTCGAGTATAT ATGACCCTTTTGCGGGAATGAAAACGCCAGGCCAGCGGCAGCTTATCACCCTCCAGGAGCAGGTGAAGCTGGGCA TTGTCAACGTGGATGAGGCTGTGCTCCACTTCAAAGAGTGGCAGCTCAACCAGAAGAAACGATCGGAGTCCTTTC GTTTCCAGCAGGAAAATCTTAAACGGCTAAGAGACAGCATCACCCGAAGACAGAGAGAAGAAGACAAAAATCAGGAA CCTCCAGCACAAGTAGCACAAGTAACCGCTCCAGCACCCGGAGCCTCCTCAGTGTGAGCAGCGGGATGGAAG GGGACAACGAGGATAATGAAGTCCCTGAGGTTACCAGAAGTCGCAGTCCAGGCCCCCCACAAGTGGATGGGACAC CCACCATGTCCCTCGAGAGACCCCCCAGGGTGCCTCCGAGAGGCTGCCTCACAGAGGCCTCCGACCAGGGAGACCT TCCATCCTCCACCTGTTCCACCCAGAGGACGCTGATTCCACCTCCTAAAACCTGCCTACTTCAGGACTTTAA GACTCACAGTCTTCAGCCTGTTAATGATGTCTTCATGTTGAGTTTTATAGCATGACTGTTGACCTTAAGATCCAT TCTCATTGCTGATAATGCTGCAGCCCTGCTGGTTTGGGCTTGCCTCGAAGATTTTATTAAGGCACGAAGAAGTGA AAAACTAAGGGCTTCATTCACCATCACCAAGTATATCGAACCATATACTTGTTTGCCAAAAGGATGAAGACTTAA TCGAAATACTTACCTCTAATTTGCCATATCAGAAGCCTAAAAAGAATGATCATAAATGTACTTCACCAGTGATTT TACTGAAATGCACTTATATTAGTCTTTATGTATTTGCTAGTTCAGCCTGATTTCTAGAAGAGGTTATAGTGTGAG ACTTGTAGTATTCAAGTAAGATAAGTGACCTAATTTTAAAATAATTCTTCTACTTTTCTGTATATTCAGCAGGGT ATTTAAGTGCTAGGGCTGGTCACACAACCAACTGAAAAAGACTAGAGGGATTAGTACAAACTCCTCTTATACA CTGGGCCTGCTCATTCTAGGTCACCACATTTTCCATCTCCAAATAGCCAGGCCCTCTCTCCCTCAAGAAATGCCC AGATGTAGAAATTCATCAGTGCCTATTGGTCTTCCAGAATTTTCCATCTTCCGTATCTCCCAGGCATGAGACTAC CAAGTTTGTTTGTTTCCTATTTGGGAATTTATACTTCAGTATGGTTTCAACGCAGTTATGTTTCCAGAGA ACATCTAGAAGTGGCTGGAAACCAGAAGCTGGGGATTCCAGGGACCCCACTTAGTGCTCTATTTCCTTTATAGGT TATTTGAAAAAAATCTACAAAGTTTCAAAAAGCAAAACTTGAATTTGCTGCATGCCAAGAAGTATGTTGAATTC ATGTAAATGAAGTGATGTTAGGCATTGTATTAGATATTATAAGAAATCTAGAAATGATTTAAAGCATACAGGAG GATGTGCATAGGTTATATGCAAATACTATGCTATTTTATATATGGGACTTGAGCATTTGTGGATTTTGATACTGG GGGATCCTGGAACCAATCCCCCATGGATACCAAAGTACGACTGTAGTTATCTATTTTTTACATACTTATTATCAC CACCATGCTCAGTAAGTCCATTTTTGCATGGAATATGGAGCCTTAAAACATGTCATGAATTTTGGAGTCCCTGGCA CATAAATCTACCTTCAAATCAGAGGTCCTTAATGATGCCTAAACATACAGTAAAATTAGAATCAGAAATACTTCT TTAAAAAATATTCAAAATGTGTTTGTTTCCCATGGGATTATTCTCTATCCCACACGAATGTAAAAAAATCCACAT

## 3271/6881 FIGURE 3020B

WO 2004/030615 PCT/US2003/028547

## 3272/6881 FIGURE 3021

MVVQPDRIRCGAETTVYVIVRCKLDDRVATEAEFSPEDSPSVRMEAKVENEYTISVKAPNLSSGNVSLKIYSGDL VVCETVISYYTDMEEIGNLLSNAANPVEFMCQAFKIVPYNTETLDKLLTESLKNNIPASGLHLFGINQLEEEDMM TNQRDEELPTLLHFAAKYGLKNLTALLLTCPGALQAYSVANKHGHYPNTIAEKHGFRDLRQFIDEYVETVDMLKS HIKEELMHGEEADAVYESMAHLSTDLLMKCSLNPGCDEDLYESMAAFVPAATEDLYVEMLQASTSNPIPGDGFSR ATKDSMIRKFLEGNSMGMTNLERDQCHLGQEEDVYHTVDDDEAFSVDLASRPPVPVPRPETTAPGAHQLPDNEPY IFKVFAEKSQERPGNFYVSSESIRKGPPVRPWRDRPQSSIYDPFAGMKTPGQRQLITLQEQVKLGIVNVDEAVLH FKEWQLNQKKRSESFRFQQENLKRLRDSITRRQREKQKSGKQTDLEITVPIRHSQHLPAKVEFGVYESGPRKSVI PPRTELRRGDWKTDSTSSTASSTSNRSSTRSLLSVSSGMEGDNEDNEVPEVTRSRSPGPPQVDGTPTMSLERPPR VPPRAASQRPPTRETFHPPPPVPPRGR

MAEVQVLVLDGRGHLLGRLAAIVAKQVLLGRKVVVVCCEGINISGNFYRNKLNYLAFLRKRMNTSPSRGPYHFRA PSRVFWRTVRGMLPHKTKRGQAALDRLKVSDGIPPPYDKKKRMVVPAALKVVRLKPTRKFAYLGRLAHEVGWKYQ AVTATLEEKRKEKAKIHYRKKKQLMRLRKQAEKNVEKKIDKYTEVLKTHGLLV

# 3275/6881 FIGURE 3024A

GGCACGAGGCACGTGGGTTCTGAGCGTGTTTCTACGTCCCTGGAAGCCGGTCATTTAAGCTCATTCCTCGCCACG GCTTAGTCAACATGGGTCGCTCGGGAAAGTTGCCCTCTGGTGTCTCAGCTAAGTTGAAGCGCTGGAAGAAAGGCC GAAGGAGTGACCTGACAGTCGATGCTGTGAAGTTACATAATGAGCTGCAGTCAGGGTCCTTGCGCTTGGGCAAAA GCGAAGCCCCGGAGACGCCCATGGAAGAAGAGGCGGAGCTGGTTCTCACCGAGAAGTCCTCGGGTACCTTCCTGA GTGGCCTTTCCGACTGCACAAACGTCACCTTCAGCAAAGTACAGCGCTTCTGGGAGTCCAACTCGGCTGCCCACA ACCTTGTCCTGAAGCGTGTTCCCAGCCCTGTGCTTATTAAGAAGTTCTCTGATACCTCCAAAGCCTTCATGGATA GGAAGCAAGACCTGGAGGCCTGGGGCTACCCCGTGACCCTTCAGGTGTACCATGGGCTGCTGAGCTTCACGGTGC ATCCCAAGCCCAAGATCCGGAAGGCTGCCCAGCATGGAGTATGCTCAGTCCTCAAGGGCAGTGAATTCATGTTTG AAAAGGCCCCTGCCCATCATCCTGCCATTTCCACTGCCAAGTTCTGCATCCAGGAGATTGAGAAGTCTGGAG GCTCCAAGGAGGCCACCACCACGCTGCACATGCTGACGCTGCTGAAGGACCTGCTGCCCTGCTTCCCGGAAGGCC  $\tt TGGTGAAGAGCTGCAGTGAGACTCTCCTCAGGGTCATGACCTTGAGCCATGTGCTGGTGACAGCCTGTGCCATGC$ AGGCCTTTCACAGCCTCTTCCACGCCAGGCCTGGCCTGAGCACCCTGTCAGCAGAGCTCAACGCCCAGATCATCA CGGCCCTGTACGACTATGTTCCCAGTGAGAATGATTTACAACCCCTGCTAGCCTGGCTTAAGGTCATGGAGAAAG TGGCTCCCCACATGGCTGACATTGGCTCCGTGACCTCCTCGGCCTCAGGCCCTGCCCAATCTGTTGCCAAGATGT TCTTCGAGGCGTGTGGGAGACAGGCCCACCCTGTGATGAGGAAGTGCCTCCAGTCCCTGTGTGACCTGCGCCTCT CCCCTCATTTCCCCCACACGCCGCTCTTGACCAGGCAGTGGGGGCTGCGGTGACCAGTATGGGACCTGAGGTGG TCATCCGAGACCATGTTCAGGAAACGCGACTTGGTTTTTTCACCACCTACTTCTTGCCCCTGGCTAACACCCTGA AGAGCAAAGCCATGGACCTGGCTCAGGCAGGCACCACTGGAATCTAAGATCTACGACACACTCCAGTGGCAGA TGTGGACACTCCTGCCTGGGTTCTGCACAAGGCCTACAGATGTGGCCATCTCCTTCAAAGGGCTGGCACGGACGC TGGGCATGGCCATCAGCGAGCGTCCAGACCTGAGGGTCACCGTGTGCCAGGCCCTGCGCACCCTCATCACCAAGG GCTGCCAGGCAGAGGCTGACCGTGCTGAAGTGAGTCGCTTTGCCAAGAACTTTCTGCCGATCCTCTTCAACCTGT ATGGGCAGCCCGTGGCAGCCCGGGACACTCCAGCCCCTCGCCGGGCTGTGCTGGAAACCATCAGAACTTACCTCA CCATCACTGACACTCAGTTGGTGAACAGTCTCCTGGAAAAAGCCAGTGAGAAGGTGCTCGACCCTGCCAGCTCTG ACTTTACCAGATTGTCTGTCCTGGACCTGGTCGTGGCCTTGGCTCGTGTGCTGACGAAGCTGCCATCAGTAAGC TATACTCCACCATCCGGCCCTACCTAGAGAGCAAGGCCCACGGGGTGCAGAAGAAGGCCTACCGAGTGCTGGAGG AGGTGTGTGCCAGTCCTCAGGGCCCCGGGGCCCTCTTCGTGCAGAGCCACCTGGAGGACCTGAAGAAGACACTGC TGGACTCGCTGCGGAGCACCTCCTCACCCGCCAAGAGGCCCCGTTTGAAGTGCCTCCTACACATCGTGAGGAAGC TCTCAGCTGAACACAAGGAGTTCATCACTGCCCTCATCCCAGAGGTGATCCTGTGCACCAAGGAGGTGTCGGTGG GCGCACGGAAGAACGCTTTTGCACTGCTCGTGGAGATGGGCCATGCTTTCCTAAGGTTTGGCTCGAACCAGGAAG AGGCCCTGCAGTGCTACCTCGTCCTGATCTACCCTGGCCTGGTGGGCGCGGTGACCATGGTCAGCTGCAGCATCC TGGCCCTGACCCACCTCCTTTTCGAGTTTAAAGGTCTGATGGGGACCAGTACAGTGGAGCAGCTGCTGGAGAATG TCATGGACGTGGCGCACCTGGCCAAACATGTGCAGCTGGTGATGGAAGCCATTGGGAAGCTTTCAGATGACATGC  ${\tt GGCGGCACTTCCGCATGAAGCTTCGGAACCTGTTCACCAAGTTCATCCGCAAGTTTGGATTTGAGCTGGTGAAAA}$ GGCTGTTGCCCGAGGGTACCACAGAGTCCTGGTCAACATCCGGAAAGCTGAGGCCCGGGCCAAGAGGCACCGAG CCCTGAGCCAGGCTGCAGGAGGAGGAAGAAGAGGAGGAGGAGGAGGAGCCCGCCCAGGGCAAAGGTGACA GCATTGAGGAGATTTTAGCTGACTCAGAGGACGAGGAGGACAATGAGGAGGAAGAAGAAGCCGAGGCAAGGAGGC AGCGGAAGCTGGCACGACAGAGGAGCCGGCCATGGCTGAAAGAGGGCGGTGGGGACGAGCCCCTCAACTTCCTGG ATCCCAAGGTGGCCCAACGAGTCCTGGCCACGCAGCCAGGCCAGGCCGGGCAGGAAGAAGAACAAGCTTCA AGGTGAGCGCCGATGGCCGGCTGATCATAAGGGAGGAGGCAGACGGCAACAAGATGGAGGAAGAGGAAGGTGCCA

# 3276/6881 FIGURE 3024B

MGRSGKLPSGVSAKLKRWKKGHSSDSNPAICRHRQAARSRFFSRPSGRSDLTVDAVKLHNELQSGSLRLGKSEAP ETPMEEEAELVLTEKSSGTFLSGLSDCTNVTFSKVQRFWESNSAAHKEICAVLAAVTEVIRSQGGKETETEYFAA  ${\tt LMTTMEAVESPESLAAVAYLLNLVLKRVPSPVLIKKFSDTSKAFMDIMSAQASSGSTSVLRWVLSCLATLLRKQD}$ LEAWGYPVTLQVYHGLLSFTVHPKPKIRKAAQHGVCSVLKGSEFMFEKAPAHHPAAISTAKFCIQEIEKSGGSKE ATTTLHMLTLLKDLLPCFPEGLVKSCSETLLRVMTLSHVLVTACAMQAFHSLFHARPGLSTLSAELNAQIITALY  ${\tt DYVPSENDLQPLLAWLKVMEKAHINLVRLQWDLGLGHLPRFFGTAVTCLLSPHSQVLTAATQSLKEILKECVAPH}$ MADIGSVTSSASGPAQSVAKMFRAVEEGLTYKFHAAWSSVLQLLCVFFEACGRQAHPVMRKCLQSLCDLRLSPHF  ${\tt PHTAALDQAVGAAVTSMGPEVVLQAVPLEIDGSEETLDFPRSWLLPVIRDHVQETRLGFFTTYFLPLANTLKSKA} \\ \cdot \\$  $\verb|MDLAQAGSTVESKIYDTLQWQMWTLLPGFCTRPTDVAISFKGLARTLGMAISERPDLRVTVCQALRTLITKGCQA|$ EADRAEVSRFAKNFLPILFNLYGQPVAAGDTPAPRRAVLETIRTYLTITDTQLVNSLLEKASEKVLDPASSDFTR LSVLDLVVALAPCADEAAISKLYSTIRPYLESKAHGVQKKAYRVLEEVCASPQGPGALFVQSHLEDLKKTLLDSL RSTSSPAKRPRLKCLLHIVRKLSAEHKEFITALIPEVILCTKEVSVGARKNAFALLVEMGHAFLRFGSNQEEALQ CYLVLIYPGLVGAVTMVSCSILALTHLLFEFKGLMGTSTVEQLLENVCLLLASRTRDVVKSALGFIKVAVTVMDV  $\verb|AHLAKHVQLVMEAIGKLSDDMRRHFRMKLRNLFTKFIRKFGFELVKRLLPEEYHRVLVNIRKAEARAKRHRALSQ|$ AAVEEEEEEEEEPAQGKGDSIEEILADSEDEEDNEEEERSRGKEQRKLARQRSRAWLKEGGGDEPLNFLDPKV AQRVLATQPGPGRGRKKDHSFKVSADGRLIIREEADGNKMEEEEGAKGEDEEMADPMEDVIIRNKKHQKLKHQKE AEEEELEIPPQYQAGGSGIHRPVAKKAMPGAEYKAKKAKGDVKKKGRPDPYAYIPLNRSKLNRRKKMKLQGQFKG LVKAARRGSQVGHKNRRKDRRP

TGCTACTCCGGAATCTGCTAATCCCAGTCGGTGCCGCATCCCCAGCCCGCCATGGCCGCCTACAAACTGGTG CTGATCCGGCACGGCGAGAGCGCATGGAACCTGGAGAACCGCTTCAGCGGCTGGTACGACGCCGACCTGAGCCCG GCGGGCCACGAGGAGGCGAAGCGCGGCGGGCAGGCGCTACGAGATGCTGGCTATGAGTTTGACATCTGCTTCACC TCAGTGCAGAAGAGAGCGATCCGGACCCTCTGGACAGTGCTAGATGCCATTGATCAGATGTGGCTGCCAGTGGTG AGGACTTGGCGCCTCAATGAGCGGCACTATGGGGGTCTAACCGGTCTCAATAAAGCAGAAACTGCTGCAAAGCAT GGTGAGGCCCAGGTGAAGATCTGGAGGCGCTCCTATGATGTCCCACCACCTCCGATGGAGCCCGACCATCCTTTC TACAGCAACATCAGTAAGGATCGCAGGTATGCAGACCTCACAGAAGATCAGCTACCCTCCTGTGAGAGTCTGAAG GATACTATTGCCAGAGCTCTGCCCTTCTGGAATGAAGAAATAGTTCCCCAGATCAAGGAGGGGAAACGTGTACTG ATTGCAGCCCATGGCAACAGCCTCCGGGGCATTGTCAAGCATCTGGAGGGTCTCTCTGAAGAGGCTATCATGGAG CTGAACCTGCCGACTGGTATTCCCATTGTCTATGAATTGGACAAGAACTTGAAGCCTATCAAGCCCATGCAGTTT CTGGGGGATGAAGACGGTGCGCAAAGCCATGGAAGCTGTGGCTGCCCAGGGCAAGGCCAAGAAGTGAAGGCCG GCGGGGAGGATACTGTCCCCAGGAGCACCCTCCCTGCCCGTCTTGTCCCTCTGCCCCTCCCACCTGCACATGTCA CACTGACCACATCTGTAGACATCTTGAGTTGTAGCTGCAGACGGGGACCAGTGGCTCCCATTTTCATTTTAGCCA  $\tt TTTTGTCGCCTGCACCCACTCCCTTCATACAATCTAGTCAGAATAGCAGTTCTAGAGCACAGGTTCTCAGTCTAACAATCTAGTCAGAATAGCAGTTCTAGAGCACAGGTTCTCAGTCTAACAATCTAGTCAGAATAGCAGTTCTAGAGCACAGGTTCTCAGTCTAACAATCTAGTCAGAATAGCAGTTCTAGAGCACAGGTTCTCAGTCTAACAATCTAGTCAGAATAGCAGTTCTAGAGCACAGGTTCTCAGTCTAACAATCTAGTCAGAATAGCAGTTCTAGAGCACAGGTTCTCAGTCTAACAATCTAGTCAGAATAGCAGTTCTAGAGCACAGGTTCTCAGTCTAACAATCTAGTCAGAATAGCAGTTCTAGAGCACAGGTTCTCAGTCTAACAATCTAGTCAGAATAGCAGTTCTAGAGCACAGGTTCTCAGTCTAACAATCTAGTCAGAATAGCAGTTCTAGAGCACAGGTTCTCAGAATCTAGAATCTAGTCAGAATAGCAGTTCTAGAGCACAGGTTCTCAGAATCTAGAATCTAGTCAGAATAGCAGTTCTAGAGCACAGGTTCTCAGAATCTAGAATCAAATCTAGAATCAAATCAAATCTAGAATAATCAAATCTAGAATAATCAAATCTAGAATCAAATCTAGAATCAAATCAAATCTAGAATCAAATAAATCAAATCAAATCAAATCAAATCAAATCAAATCAAATCAAATCAAATCAAATCAAATCAAATAAATCAAATCAAATCAAATCAAATCAAATCAAATCAAATCAAATCAAATCAAATCAAATCAAATAAATCAAA$ GCTATGGAAAAGCTCCCCTTATCCAACAGAGTTTAAAAGTAGTGACTTGGGTTTTTTGCGAGTGCTTTGTTTACTA GAGTCTGTCCTCTGCTCTTCTGCAGTCAGGTCACTGCCTACTGCCTGGGGGGCTCTAGTCATTCCAGTGGAAGACG AATGTAACCTGCGTGGTGATGTGACAACTGTTTCCTCCCTGACCCCAGAGGATCTGGCTCTAGGTTGGGATCAAT CCTGAATTTCGTTATGTGTTAATTTACTTTTATTAAAAAAGTATAGTATATAATAATACAAAAACAATAACCCTTCT GGGGTTTCTTGTGGCGGTTGAAATAGTCCCACATGTGGTCATCAGAAAATAAGCCATTCCTCATACCAATATAGG ATCAGCTCCTTGACCTCTGAGGGGCAGGAGTGCTTCCTGGTGTGTATTAGAATCCCTTCCTGCCTTGTTTCAT GGCAGTGAAATGCCTCTTGGTCCTGTCCAAGTGTATCTTTCACTGATTTCTGAATCATGTTCTAGTTGCTTGACC GATGTGCAAT

MAAYKLVLIRHGESAWNLENRFSGWYDADLSPAGHEEAKRGGQALRDAGYEFDICFTSVQKRAIRTLWTVLDAID QMWLPVVRTWRLNERHYGGLTGLNKAETAAKHGEAQVKIWRRSYDVPPPPMEPDHPFYSNISKDRRYADLTEDQL PSCESLKDTIARALPFWNEEIVPQIKEGKRVLIAAHGNSLRGIVKHLEGLSEEAIMELNLPTGIPIVYELDKNLK PIKPMQFLGDEETVRKAMEAVAAQGKAKK

GGTTGAGGATGGGCTGGCGGGTCCGGGTCCGCTGCCTGGCGGCGGCGGGCGGGCCATGGTGGTTTGGATT GAGCCGGGCCCGGCCGGGCCCGAGTCGGAGGGGGTGGCAGTGAGCGGCGGCAGAGGCTACGGGGCTCGGTTTG GCTGACTGGGGAGTCGGCAGGCAGGAACCATGCGAGGCCAGCGGAGCCTGCTGCTGGGCCCGGCCCGCCTCT GCCTCCGCCTCCTTCTGCTGCTGGGTTACAGGCGCCGCTGTCCACCTCTACTCCGGGGTCTAGTACAGCGCTGGC GCTACGGCAAGGTCTGCCTGCGCTCCCTGCTCTACAACTCCTTTGGGGGCAGTGACACCGCTGTTGATGCTGCCT TTGAGCCTGTCTACTGGCTGGTAGACAACGTGATCCGCTGGTTTGGAGTGGTGTTCGTGGTCCTGGTGATCGTGC TGACAGGCTCCATTGTAGCTATCGCCTACCTGTGTGTCCTGCCTCTCATCCTCCGAACCTACTCAGTGCCACGAC TCTGCTGGCATTTCTTCTATAGCCACTGGAATCTGATCCTGATTGTCTTCCACTACTACCAGGCCATCACCACTC CGCCTGGGTACCCACCCCAGGGCAGGAATGATATCGCCACCGTCTCCATCTGTAAGAAGTGCATTTACCCCAAGC CAGCCCGAACACCACCGCAGCATCTGCAACAGGTGTGTGCTGAAGATGGATCACCACTGCCCCTGGCTAAACA ATTGTGTGGGCCACTATAACCATCGGTACTTCTTCTCTTTTCTGCTTTTTCATGACTCTGGGCTGTGTCTACTGCA GCTATGGAAGTTGGGACCTTTTCCGGGAGGCTTATGCTGCCATTGAGAAAATGAAACAGCTCGACAAGAACAAAC TACAGGCGGTTGCCAACCAGACTTATCACCAGACCCCACCACCACCTTCTCCTTTCGAGAAAGGATGACTCACA AGAGTCTTGTCTACCTCTGGTTCCTGTGCAGTTCTGTGGCACTTGCCCTGGGTGCCCTAACTGTATGGCATGCTG TTCTCATCAGTCGAGGTGAGACTAGCATCGAAAGGCACATCAACAAGAAGGAGACGTCGGCTACAGGCCAAGG GCAGAGTATTTAGGAATCCTTACAACTACGGCTGCTTGGACAACTGGAAGGTATTCCTGGGTGTGGATACAGGAA GGCACTGGCTTACTCGGGTGCTCTTACCTTCTAGTCACTTGCCCCATGGGAATGGAATGAGCTGGGAGCCCCCTC  ${\tt CCTGGGTGACTGCTCACCTCTGTGATGGCAGTGTGAGCTGGACTGTGTCAGCCACGACTCGAGCACTCAT}$ TCTGCTCCCTATGTTATTTCAAGGGCCTCCAAGGGCAGCTTTTCTCAGAATCCTTGATCAAAAAAGAGCCAGTGGG CCTGCCTTAGGGTACCATGCAGGACAATTCAAGGACCAGCCTTTTTACCACTGCAGAAGAAAAGACACAATGTGGA GAAATCTTAGGACTGACATCCCTTTACTCAGGCAAACAGAAGTTCCAACCCCAGACTAGGGGTCAGGCAGCTAGC TACCTACCTTGCCCAGTGCTGACCCGGACCTCCTCCAGGATACAGCACTGGAGTTGGCCACCACCTCTTCTACTT GCTGTCTGAAAAAACACCTGACTAGTACAGCTGAGATCTTGGCTTCTCAACAGGGCAAAGATACCAGGCCTGCTG CTGAGGTCACTGCCACTTCTCACATGCTGCTTAAGGGAGCACAAATAAAGGTATTCGATTTTTAAAGAT

 ${\tt TCGCGTT} \underline{\textbf{ATG}} \texttt{GCCGCTGCCGCGGCTGTGGAGGCGGCGCGCGCTATGGGTGCCCTATGGGGCCTCGTGCACGACTT}$ CGTCGTGGGTCAGCAAGAGGGCCCCGCTGACCAGGTGGCTGCAGATGTGAAATCTGGCAACTATACAGTGTTACA AGTTGTGGAAGCCCTTGGGTCCTCTAGAGAATCCAGAACCCCGAACTCGGGCACGAGGAATCCAGCTTTTGTC CCCAGGGCTGGCTGTTTCTGTGCTTAAAGCCATCTTCCAGGAAGTGCATGTACAGTCCCTGCCACAGGTGGACCG ACACACAGTCTACAATATCATCACCAATTTTATGCGAACCCGGGAAGAAGAGCCTAAAGAGCCTAGGAGCTGACTT CACCTTTGGCTTCATCCAGGTGATGGATGGGGAAAAGGATCCCCGTAATCTTCTGGTGGCCTTCCGCATCGTCCA TGACCTCATCTCCAGGGACTATAGCCTGGGACCCTTTGTGGAGGAGTTGTTTGAAGTGACATCCTGTTATTTCCC TGCCAAGTTGGATTCTCTACAGACTCTGAATGCTTGCTGTGTGTTGTATGGACAGAAGGAACTGAAGGACTTCCT CCCCAGCCTTTGGGCTTCTATCCGCAGAGGGTGTTCCAGACGGCAAGTGAGCGGGTGGAGGCAGAGGGCCTGGC GGCCCTCCACTCCCTGACTGCGTGTTTGTCTCGCTCTGTGCTGAGGGCTGATGCTGAGGACCTCCTTGACTCCTT CCTTAGCAACATTCTACAGGACTGCAGGCACCACCTGTGTGAACCGGACATGAAACTGGTGTGGCCTAGTGCAAG CTGTTGCAGGCAGCTGCAGGTGCATCTGCCCGGGCCTGTGACTCTGTCACCAGCAATGTACTGCCTTTACTGCTG GAACAGTTCCACAAGCACAGTCAGAGCAGCCAGCGGCGGGACAATCCTTGAAATGCTCCTGGGTTTCTTGAAGCT GCAGCAGAAATGGAGCTATGAAGACAAAGATCAAAGGCCTCTGAATGGCTTCAAGGACCAGCTGTGCTCACTGGT ATTCATGGCTCTAACAGACCCCAGCACCCAGCTTCAGCTTGTTGGCATCCGTACACTGACAGTCTTGGGTGCCCA GCCAGATCTCCTATCTTATGAGGACTTGGAGCTGGCAGTGGGTCACCTGTACAGACTGAGCTTCCTGAAGGAGGA TTCCCAGAGTTGCAGGGTGGCAGCACTGGAAGCATCAGGAACCCTGGCTGCTCTACCCTGTGGCCTTCAGCAG ATGCTCCCGGCATCTGTGCTGTCTGCAAGCCTTGTCAGCTGTATCAACACATCCCAGCATCGTCAAGGAGACACT GCCTCTGCTGCTGCAGCATCTCTGGCAAGTGAACAGAGGGAATATGGTTGCACAATCCAGTGACGTTATTGCTGT CTGTCAGAGCCTCAGACAGATGGCAGAAAAATGTCAGCAGGACCCTGAGAGTTGCTGGTATTTCCACCAGACAGC TATACCTTGCCTGCCTTGGCTGTGCAGGCCTCTATGCCAGAGAAGGAGCCCTCAGTTCTGAGAAAAGTACT ATTGGAGGATGAGGTGTTGGCCATGGTGTCTGTCATTGGCACTGCTACAACCCACCTGAGCCCTGAGTTAGC TGCCCAGAGTGTGACACACATTGTGCCCCTCTTCTTGGATGGCAACGTGTCCTTTCTGCCTGAAAACAGCTTCCC GAGCAGATTCCAGCCATTCCAGGATGGCTCCTCAGGGCAGAGGCGGCTGATTGCACTGCTTATGGCCTTTGTCTG CTCCCTGCCTCGAAATGTGGAAATCCCTCAGCTGAACCAACTCATGCGGGAGCTTTTGGAACTGAGCTGCCCA CAGCTGCCCCTTTTCTTCCACCGCTGCTGCCAAGTGCTTTGCAGGACTCCTCAACAAGCACCCTGCAGGGCAGCA GCTGGATGAATTCCTACAGCTAGCTGTGGACAAAGTGGAGGCTGGCCTGGGCCTCTGGGCCCTGTCGTAGTCAGGC CTTCACTCTTCTCTCTGGGTAACAAAGGCCCTAGTGCTCAGATACCATCCTCTAGCTCCTGCCTTACAGCCCG CACTGATGTGCTGACTCGTGCTGGCCATGCTGAAGTGCGGATCATGTTCCGCCAGCGGTTCTTCACAGATAATGT GCCTGCTTTGGTCCAGGGCTTCCATGCTGCTCCCCAAGATGTGAAGCCAAACTACTTGAAGGGTCTTTCTCATGT ACTTAACAGGCTGCCCAAGCCTGTACTCTTGCCAGAGCTGCCCACGCTTCTTTCCTTGCTGCTGGAGGCCCTGTC CTGCCCTGACTGTGTGGTGCAGCTCTCCACCCTCAGCTGCCTTCAGCCTCTTCTACTGGAAGCACCCCAAGTCAT GAGTCTTCACGTGGACACCCTCGTCACCAAGTTTCTGAACCTCAGCTCTAGCCCTTCCATGGCTGTCCGGATCGC CGCACTGCAGTGCATGCTCTCACTCGCCTGCCCACCCCTGTGCTGCCGTACAAACCACAGGTGATTCG GGCCTTAGCCAAACCCCTGGATGACAAGAAGAAGACTGGTGCGCAAGGAAGCAGTGTCAGCCAGAGGGAGTGGTT  ${\tt TCTGTTGGGGAGCCCTGGCAGC} {\tt TGA} {\tt GCCCTCAGTCCTGGCCTAGACTGTTCTGACAATCTAACCTGGGATTACTA}$ ACTGTTGAGCCATCTTCCCCAAAGCAGGGAAACCACTGGTCTCTGACTGCCTTTCCCACAGACACAGCACAAATG CTAGGCCTCTGTTGCATGGCTGTACAAAGAACATAAGAGTCCATATTTCTAGTGGATTTGTAAAATAAGTGTGTG TGAGACACTTGCGTTTGAAGAAAGATCTAGGGTCCTGGGTCTCTTGCATTTATATGTCAGAAAAGGGGCGATATG CTGCTGAGGGGTGAGTGCATATGAGTGTGGCCCTGAGGACCAGGGCTGGCAGATGTTGTCTACCTGCTGAG

MAAAAAVEAAAPMGALWGLVHDFVVGQQEGPADQVAADVKSGNYTVLQVVEALGSSLENPEPRTRARGIQLLSQV
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GLLSDPELGPAAADGFSLLMSDCTDVLTRAGHAEVRIMFRQRFFTDNVPALVQGFHAAPQDVKPNYLKGLSHVLN
RLPKPVLLPELPTLLSLLEALSCPDCVVQLSTLSCLQPLLLEAPQVMSLHVDTLVTKFLNLSSSPSMAVRIAAL
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 ${\tt MTARGTPSRFLASVLHNGLGRYVQQLQRLSFSVSRDGASSRGAREFVEREVIDFARRNPGVVIYVNSRPCCVPRV} \\ {\tt VAEYLNGAVREESIHCKSVEEISTLVQKLADQSGLDVIRIRKPFHTDNPSIQGQWTPSPTSRPRSAGYAPERFRI} \\ {\tt LPQPRCKHSEELPHQLQPQALDCYSGKGGSSPLGFQAQANGTHQWAS} \\ {\tt MTARGTPSRFLASVLHNGLGRYVQQLQRLSFSVSRDGASSRGAREFVEREVIDFARRNPGVVIYVNSRPCCVPRV} \\ {\tt VAEYLNGAVREESIHCKSVEEISTLVQKLADQSGLDVIRIRKPFHTDNPSIQGQWTPSPTSRPRSAGYAPERFRI} \\ {\tt LPQPRCKHSEELPHQLQPQALDCYSGKGGSSPLGFQAQANGTHQWAS} \\ {\tt MTARGTPSRFLASVLHNGLGRYVQQLQRLSFSVSRDGASSRGAREFVEREVIDFARRNPGVVIYVNSRPCCVPRV} \\ {\tt MTARGTPSRFLASVLHNGLGRYVQQLQRLSFSVSRDGASSRGAREFVEREVIDFARRNPGVVIYVNSRPCCVPRV} \\ {\tt MTARGTPSRFLASVLHNGLGRYVQQLQRLSFSVSRDGASSRGAREFVEREVIDFARRNPGVVIYVNSRPCCVPRV} \\ {\tt MTARGTPSRFLASVLHNGLGRYVQQLQRLSFSVSRDGASSPLGFQAQANGTHQWAS} \\ {\tt MTARGTPSRFLASVLHNGLGRYVQQLQRLSFSVSRDGASSPLGFQAQANGTHQWAS} \\ {\tt MTARGTPSRFLASVLHNGLGASVLHNG$ 

 $\tt CTGATCAGGAGGAGGTTCAGCTGGCTGATACAATGTTTGGCCTTACCAAGGTTACAGATGACACACTCAAGCGTT$ TCAGTGTGCGATATCTGCGACCTGCTCGCAGTCTTGTCTTCCCTTGGTTCTCCCCTGGGGGTTCAGGATTACGAG GCCTGAAGCTCCTAGAGGCTAAATGCCAGGGGGATGGAGTGAGCTACGAGGAAACCACTATTCCCCGACCCAGCG CCTACCACAATCTGTTTGGATTACCACTGATTAGTCGTCGAGATGCTGAGGTGGTACTGACGAGTCGTGAGCTTG ACAGCCTGGCCTTGAACCAGTCCACGGGGCTGCCTACCCTTACTCTACCCCGAGGAACGACCTGCTTACCCCCTG CCTTACTCCCTTACCTGGAACAGTTCCGGCGGATTGTATTCTGGTTGGGGGATGACCTTCGGTCCTGGGAAGCCG CCAAGTTGTTTGCACGAAAACTGAACCCCAAACGATGCTTCTTGGTGCGACCAGGAGACCAGCAACCCCGTCCCC GCCGCTTTCCAGACCTCAATCGTATCTTGAAGGGACATCGAAAGGGCGAGCTGACGGTCTTCACAGGGCCAACAG GCAGTGGAAAGACGACATTCATCAGTGAGTATGCCCTGGATTTGTGTTCCCAGGGGGTGAACACACTGTGGGGTA GCTTCGAGATCAGCAATGTGAGACTAGCCCGGGTCATGCTGACACAGTTTGCCGAGGGGCGGCTGGAAGATCAAC TGGACAAATATGATCACTGGGCTGACCGCTTTGAGGACCTGCCCCTCTATTTCATGACTTTCCATGGACAGCAAA GCATCAGGACTGTAATAGATACAATGCAACATGCAGTCTACGTCTATGACATTTGTCATGTGATCATCGACAACC GGAAGTTTGCAACAGACAATAACTGCCATGTGACACTGGTCATTCACCCCCGGAAAGAGAGGATGATGACAAGGAAC TGCAGACAGCGTCCATTTTTGGCTCAGCCAAAGCAAGCCAGGAAGCAGACAATGTTCTGATCCTGCAGGACAGGA AGCTGGTAACCGGGCCAGGGAAACGGTATCTGCAGGTGTCCAAGAACCGCTTTGATGGAGATGTAGGTGTCTTCC CGCTTGAGTTCAACAAGAACTCCCTCACCTTCTCCATTCCACCAAAGAACAAGGCCCGGCTCAAGAAGATCAAGG ATGACACTGGACCAGTGGCCAAAAAGCCCTCTTCTGGCAAAAAGGGGGGCTACGACACAGAACTCTGAGATTTGCT CAGGCCAGGCCCCACTCCCGACCAGCCAGACACTCCAAGCGTTCAAAGTGAAGGCCGTGCAGAGCTGGTCACT GAAATGAGCCTGATAGGATAGGCTGGAGCATAAAACTCTGCAAGGGCTCCTCTATCCTGTGGTCCTGAGCTGTGT GCCCTTCTCAGTCTGAGGGGCCTAACCTAGAGCAGGTTTCCATAGTGAGAAAATTCAATGTAGCAGACTACTGAG AAACTACTGTTGTTGCTCAGGCTTTGTTTGAGGTCCTGTATATACAGCACTGAAAAGAGAGATAAAGTCCCTGCCT GCATGCATTCTGGCGGAAGAGACAAGCAAGCAATGAACAAATTAGCAGAAAACCTAGTTTTAGTGAAAAATGCTG TAAAGAAAATAGAAATGCGATAGAGTGCTGGCAGGCTAGTGTAGATAAGTGGTCTGAAAAGGTGTCTCTGAGCCG AGGGCATGTGAGCTGGGGCCTAAACAACTAGAAGGAGAGCCACGTGAACATCCGGCGAAGGGGACCCAGGCAG AGAGAAAGGAAATCCAAGCCCTGAGGTAGGAATGAGCAGGTCAGATTCAAGGCAGTGAGGTCAGGCCGCATGAA CCTGGAGGGGAATCGGGGACTTCATGCGAAACTCCAGCCTAGGCTTTCAAAGTCAAAGGGTGATACAGTGGGTAC CAAGCTCCTCTGCTCCCCACTTTGTAGAGCCTAGCATGAGGTGGCATGTACTAGAATTGGATCCTAGGTGCTTAG CTGTCAGCCCGGAGTGCCTGCCACCTAGACACTGATGCCATTGTGTGCTGCCTCAAGACTGCTGGAGTCAGGACA 

MFGLTKVTDDTLKRFSVRYLRPARSLVFPWFSPGGSGLRGLKLLEAKCQGDGVSYEETTIPRPSAYHNLFGLPLI SRRDAEVVLTSRELDSLALNQSTGLPTLTLPRGTTCLPPALLPYLEQFRRIVFWLGDDLRSWEAAKLFARKLNPK RCFLVRPGDQQPRPLEALNGGFNLSRILRTALPAWHKSIVSFRQLREEVLGELSNVEQAAGLRWSRFPDLNRILK GHRKGELTVFTGPTGSGKTTFISEYALDLCSQGVNTLWGSFEISNVRLARVMLTQFAEGRLEDQLDKYDHWADRF EDLPLYFMTFHGQQSIRTVIDTMQHAVYVYDICHVIIDNLQFMMGHEQLSTDRIAAQDYIIGVFRKFATDNNCHV TLVIHPRKEDDDKELQTASIFGSAKASQEADNVLILQDRKLVTGPGKRYLQVSKNRFDGDVGVFPLEFNKNSLTF SIPPKNKARLKKIKDDTGPVAKKPSSGKKGATTQNSEICSGQAPTPDQPDTSKRSK

## 3287/6881 FIGURE 3035A

GCGGCCGCCGCGCGCGTGGCCCTTTGTGCTGGAACAATGACCAGCTGCCGCTGGCCCCGGGGCCCCGGCTGGG GTTGAGGGTGACCACCGCCGCCGCCGCCGAGCCGAACCGAGCCCCCAGACACGCAGTCACAGGGCGTCGGAGG GAGGGCTCCCGACTGCCGCGAGCAGCCCCTACGTGCGCCCCGGCGGATTCGCGTGACGCGGGTGCTTGCGCGTG GCCGGGGCCGGGGCCGGAGCCGGAGCCGGGCCGGCGCGCCTGTGGAGCGCTGGGGGCGCCTGG GGCTGAGCATGGAGCAGCGGGGGGGGGGGGGGGGGCCGGGTCTGGGAGGCGGCCTGGGGAGCCCCCAACTTAT GCGCGGTGGAATCCAGCCGGGGGGACGGCGTTCCCCAGTCGCCCCCACTTTCTGGAAGGGGGGCTGGACTCTGGA GAATGGGTCAGGGGCTCCTGGCTTCCCGCCGCAGAATGGGAACTCGTGATCGCAGACTTGACCCCGCTTGACTGG TCCTTGGAGTTTGGGTGGGAGGGAGACTTTCCCCAACTCTTCAGATCCGTCTCCGGCCCTGAACCAGCTCCAGCC CTCTGCTCTCAGCCCACTAAAAGGGGGGTGCTCCTGGGCCAGAGTGATTGCTCAGGGAGTGCTGGGGAGAAT GAGGGGTTCCCATCTCCCACAGCCACAAACGCATTTCTCAAAATGGAGCCTCCACTTGCCCCTCCTTCTCTTCG GGCTCCAAGAGCGGGAGCCGGCCTGGCTGGCCTTCCAGACTCCTGGCTCTGGCTCCCTGGATGTGTGGC TCTCAGGGCCCGGCTCTGTGGCACTTTGGACTTATGGGCCCTCGGCTCCGTGGGGTTGGGGGGCCCTGGCTCACT GGGTCCCGCTGGCTGTCCCCTTGTCGGCCTGACCCTCGGGCCTCTCCGAGTCTTTTGTCTCTTTTTGGGTCCCTGTC TTTCTCTGAGCCTGTCTCCTTCCATTTTCACTTTCTCCGTGCTCGCTGAAGTGGGGAAATGCAACAGAGGT GCCAGCCCCTTGGCCCCCTAAGAAGTCCCTTCCCCACTGTTCACTCCACACCCTGGAGTGGGCCCAGAGAGGGG AGGGGAGGGGTTCTCTATCTGCTCTGCTGGGGGCTGGGGTGTGTGGGGTGTCTGAGCCCCAGCCCTACAGAGG GGCCTGTGGTCACTCCTGGTCCTGGCCTACCCCTCCCCAGCTCCCGCAGCTCCTGCCCCAGCGTGGACACCT CTTCCTGGTTCGCAGTGTCTTTTGACTTGGGTGGGAAGGAGGGCGGTGGATTTAATGGAGGGCATGCGAGAAAGA AGGGGAACAGATCAGGCAAAGGAGTTAGATAATGTCCCACCTCTCCCCACACGCCGAAGAGAAGAAGGAAACAGGC TCCCCCCACCAATGGGCCCTCAAGCCACCCAGGCTCCCACCACTCTCATACCTGCGTGCCCACGTTCACAGGCTC CACTGCACCACTCACCTTCCTAGTCACACACAAACACAGGAGCTCACACATAAACTCATGAACTTACTGACAAGT CTGTCCAGGCACCGTCTCTCCCACACACACACAAATTCACTTGTTAGATCCACATTTATAACTTTCACAGGCTTTC  ${\tt TGCTCCTGTGCATGTAGTCACACAACAAATAACTAAATGCACACACTCCTACTCCCAGTGCAATTCTCTGTCCAC}$ TTCTTGGCCCCGCTCTGCATGATGACTTCAGCAGATGCCTAAGTCCTGGTCATCAGCGGCCTCGGGACTGGGACT GGTTAGTTTGGGGACCTTCTGAAGCTGTAGGGTTTCAGAGAGGGTTGGCAGTGGGGCAGAGCCTGTGGAGGCTCCT TCAGGCCTTCAGGCCTCACCGATTGGGTGTCAGGAGGCTAGGAGTTGTCATGGAAACTGGTATGAGCCTGCATCC ACCTCTGGGAGGCAGGAGACCCCAAAGGACACCTGTGGACTCCCTAAGAGCCGCGGGTTTCTTATTTAGCCAGAT GGCCTTGGCTCTTTGTTCCCTAATTACCATCTGAGGTGCTGATTGCACCCCTGAGGTACCTCTGCCCAAACTGCC GAGTCCTGGCCTCTGTGGAGGATGCAGGATTGGGCCTTGGGCCTTGGGTCTTTGCTGCCAGGTGGCCCTGCGGTAAT CATCCAGGCCTCCCATGCCTCTCAGCATCTCTGCTGAGTGAATTCACTCCTCAGCCCTGTTCAGACCAGCATTGG GCAGTGTGTTTGGGGCCCAGGGGGAATTGAGATTCATTCCAGCACTTGAAGGGGGAGTCTTGGTGGGGATCAGG GCTTGTTACTGATGTCAAGGAGGTGTTTGGTCAGGATCAGTGGGTCAGGAGGGGTCTCAAGGTGGAGGGACTCTG ACACCACTGCCTGCTTACAGGTCGCCTGCGAGGCCGCTGGCCAGGCCTGAGCCTCTGCCACCATGGCCATTGTG CAGACTCTGCCAGTGCCACTGGAGCCTGCTCCTGAAGCTGCCACTGCCCCACAAGCTCCAGTCATGGGTAGTGTG AGCAGCCTTATCTCAGGCCGGCCCTGTCCCGGGGGGCCAGCTCCTCCCGGCCACCACGGCCCTCCTGGGCCCACC TTCTTCCGCCAGCAGGATGGCCTGCTACGGGGTGGCTATGAGGCACAGGAGCCGCTGTGCCCAGCTGTGCCCCCT AGGAAGGCTGTCCCTGTCACCAGCTTCACCTACATCAATGAGGACTTCCGGACAGAGTCACCCCCAGCCCAAGC AGTGATGTTGAGGATGCCCGAGAGCAGCGGGCACACAATGCCCACCTCCGCGGCCCACCACCAAAGCTCATCCCT GTCTCTGGAAAGCTGGAGAAGAACATGGAGAAGATCCTGATCCGCCCAACAGCCTTCAAGCCAGTGCTGCCCAAA CCTCGAGGGGCTCCGTCCCTAGCTTCATGGGTCCTCGGGCCACCGGGCTGTCTGGGAGCCAGGGCAGCCTG

## 3288/6881 FIGURE 3035B

ACGCAGCTGTTTGGGGGCCCTGCCTCCTCCTCCTCCTCCTCCTCTCTCAGCTGCTGACAAACCCCTGGCA TTTAGTGGCTGGGCCAGTGGCTGCCCATCAGGGACGCTATCCGACTCTGGCCGAAACTCACTGTCCAGCCTGCCC ACCTACAGCACCGGAGGTGCCGAGCCAACCACCAGCTCCCCAGGCGGGCACCTGCCTTCCCATGGCTCTGGGCGA GGGGCACTGCCTGGGCCAGCCCGAGGGGTCCCTACTGGGCCCTCCCACTCAGACAGTGGCCGGTCCTCCTAGC AAGAGCACAGGCTCCCTAGGGGGGCCTGTGGCTGGGGGGGCTTTTGGGCAGTGGTACTCGGGCCTCCCCTGACAGC AGCTCCTGTGGGGAGCGCTCACCACCACCCCCGCCTCCACCTCCTTCGGATGAGGCCCTGCTGCACTGTGTCCTG GAAGGAAAGCTCCGAGACCGGGAGGCAGAGCTTCAGCAGCTGCGGGACAGTCTGGACGAGAATGAGGCTACCATG TGCCAGGCATACGAGGAGCGGCAGCGGCACTGGCAGCGAGAGCGTGAGGCCCTGCGAGAGGACTGTGCGGCCCAG GCACAGCGGGCACAGCGGGCCCAACAGCTGCTGCAGCTGCAGGTGTTCCAGCTGCAGCAGGAGAAGCGGCAATTG CAGGACGACTTCGCACAGCTGCAGGAGCGCGAACAGCTGGAGCGGCGCTGCGCCACCTTGGAGCGGAGCAG CGGGAGCTCGGGCCGAGGCTTGAGGAGACCAAGTGGGAGGTGTGCCAGAAATCAGGCGAGATCTCCCTGCTGAAG CAGCAGCTGAAAGAGTCTCAGGCAGAGCTGGTGCAGAAGGGCAGCCGAGCTGGTGGCTCTGCGGGTGGCGCTGCGG GAGGCCCGTGCTACGCTGCGGGTCAGTGAGGGCCGTGCGCGGGGTCTACAGGAGGCCGCCCGAGCTCGGGAGCTG GAGCTGGAAGCCTGTTCCCAGGAGCTGCAGCGACACCGCCAGGAAGCTGAGCAGCTGCGGGAGAAAGCTGGGCAG TTGGATGCTGAGGCGGCCGGACTCCGGGAGCCCCCTGTGCCACCTGCCACCGCTGACCCATTCCTCCTGGCAGAG AGTGATGAGGCCAAAGTGCAGCGGGCAGCCGGGGTTGGGGGGCAGCTTGCGGGCCCAGGTGGAGCGATTGCGG GTGGAGCTGCAGCGGGAGCGGCGGGGGGGAGAGCAGCAGCTTTGAGGGGGAGCGGCTGGCCTGGCAG GCAGAGAAGGAGCAGGTGATCCGCTACCAGAAGCAGCTGCAGCACCAACTACATCCAGATGTACCGGCGCAACCGG CAGCTAGAGCAGGAGCTGCAGCTCAGCCTGGAGCTGGAGCCCGGGAGCTCGCTGACCTGGGCCTGGCCGAG  $\texttt{CAGGCCCCTGCATCTGCAGGAGGAGATCACTGCTACTGAGATC} \underline{\textbf{TAG}} \texttt{GGCCCTCAGCAACCAGCTCTGTAGGGA}$ GCTCTGCCAGAGGGGCAGCAGCTGCAGATCCACTTAGGCCCCAGGGTCCACGGATGGCCCCAAAGGCTGAGGGCC CCAAAGCCACTTGTCTCCTAGGATCCAGGCCTCTGGGCTTCTGCCAAGAACTCAGGGTGGCCCTATGACTTGGAG GAGCAAGATCAGACCGCTCAAAGGTCCCCGTGTTCACTGTTACCCAGAGGCTCTTGTTACTACCCACTTCATTCC AGAAGGGGCTCCCTCTCTCACATTCCCCCCGACCCCAAAGCCAGAGAAAGCCAGATGGCACCAGCTGCTCCGG ATGTGCCTGCCCACATTGGGGGACAGGGCCGGGCCTGGGCTCGGTTCCCAGGTTTGAGCTCTGCAGCCTCTCTCC TGGAGTGAGGGGGCTGAAGTCAGACCAAAGGAAGAACTCAGAAATGTCTTGTTTATTTGTGTTTGTGACCAAGCA GCCTCTCCCTTCACCCAGGTTTATGGCCTCGTTTTCACTTGTATATTTTTCACACTGTAAATTTCTTGTACAAAC CCAAAGAAAAATTAAAAAAAATTTTTTTGTTT

MGSVSSLISGRPCPGGPAPPRHHGPPGPTFFRQQDGLLRGGYEAQEPLCPAVPPRKAVPVTSFTYINEDFRTESP PSPSSDVEDAREQRAHNAHLRGPPPKLIPVSGKLEKNMEKILIRPTAFKPVLPKPRGAPSLPSFMGPRATGLSGS QGSLTQLFGGPASSSSSSSSSSAADKPLAFSGWASGCPSGTLSDSGRNSLSSLPTYSTGGAEPTTSSPGGHLPSH GSGRGALPGPARGVPTGPSHSDSGRSSSSKSTGSLGGRVAGGLLGSGTRASPDSSSCGERSPPPPPPPPPDEALL HCVLEGKLRDREAELQQLRDSLDENEATMCQAYEERQRHWQREREALREDCAAQAQRAQRAQQLLQLQVFQLQQE KRQLQDDFAQLLQEREQLERRCATLEREQRELGPRLEETKWEVCQKSGEISLLKQQLKESQAELVQKGSELVALR VALREARATLRVSEGRARGLQEAARARELELEACSQELQRHRQEAEQLREKAGQLDAEAAGLREPPVPPATADPF LLAESDEAKVQRAAAGVGGSLRAQVERLRVELQRERRRGEEQRDSFEGERLAWQAEKEQVIRYQKQLQHNYIQMY RRNRQLEQELQQLSLELEARELADLGLAEQAPCICLEEITATEI

CTGCTGGTAAGTGGTCTATTCCTGCCCACCCCGGGTGACTAGCTTGGCCAGTAGTCGACCCCACCCGGGGACCG ACTCTGGGGGTTGGAGAGACTCTTGGGGCCGGGGTCGGGCACTCCAGCTTTCTTCTAGCCCCGAGCTGGGATTCC CTGGCCTGCGCCAGCTGCGTACACGGCGAGTACACCGCACCTGCCCGGGACTTCACCCGCAGCTGCGAGACTCCT CCATTCCCGGAGGGCTCCCCACACCTGCTGCGGCCGTGCCCCATCTCCCCGCAGCTGCGGCGCTGAGCACCCCCA TGTCGAGAGGCTGAGACCAGGACAGCCCTGACCAACGCTCCAATAGGCCGGGATCCAGCCATACTTCAATGG ATCCCAGGGGTATCTTGAAGGCATTTCCCAAGCGGCAGAAAATTCATGCTGATGCATCATCAAAAGTACTTGCAA AGATTCCTAGGAGGGAAGAGGGAGAAGAAGCAGAAGAGTGGCTGAGCTCCCTTCGGGCCCCATGTTGTGCGCACTG GCATTGGACGAGCCCGGGCAGAACTCTTTGAGAAGCAGATTGTTCAGCATGGCGGCCAGCTATGCCCTGCCCAGG AGCTGCCCCGGGTGCTCAGCTGGTGAAGTCAGCCTGGCTGAGCTTGTGCCTTCAGGAGAGGAGGCTGGTGGATG TAGCTGGATTCAGCATCTTCATCCCCAGTAGGTACTTGGACCATCCACAGCCCAGCAAGGCAGAGCAGGATGCTT CTATTCCTCCTGGCACCCATGAGGCCCTGCTTCAGACAGCCCTTTCTCCTCCTCCTCCTCCCACCAGGCCTGTGT CTCCTCCCCAAAAGGCAAAAGAGGCACCAAACACCCAAGCCCAGCCCATCTCTGATGATGAAGCCAGTGATGGGG AAGAAACCCAGGTTAGTGCAGCTGATCTGGAAGCCCTCATCAGTGGCCACTACCCCACCTCCCTTGAGGGAGATT GTGAGCCTAGCCCAGCCCTGCTGTCCTGGATAAGTGGGTCTGTGCACAGCCCTCAAGCCAGAAGGCGACCAATC ACAACCTCCATATCACAGAGAAGCTGGAAGTTCTGGCCAAAGCCTACAGTGTTCAGGGAGACAAGTGGAGGGCCC TGGGCTATGCCAAGGCCATCAATGCCCTCAAGAGCTTCCATAAGCCTGTCACCTCGTACCAGGAGGCCTGCAGTA TCCCTGGGATTGGGAAGCGGATGGCTGAGAAAATCATAGAGATCCTGGAGAGCGGGCATTTGCGGAAGCTGGACC ATATCAGTGAGAGCGTGCCTGTCTTGGAGCTCTTCTCCAACATCTGGGGAGCTGGGACCAAGACTGCCCAGATGT GGTACCAACAGGGCTTCCGAAGTCTGGAAGACATCCGCAGCCAGGCCTCCCTGACAACCCAGCAGGCCATCGGCC TGAAGCATTACAGTGACTTCCTGGAACGTATGCCCAGGGAGGAGGCTACAGAGATTGAGCAGACAGTCCAGAAAG CAGCCCAGGCCTTTAACTCTGGGCTGTGTGTGTGGCATGTGGTTCATACCGACGGGGAAAGGCGACCTGTGGTG ATGTCGACGTGCTCATCACTCACCCAGATGGCCGGTCCCACCGGGGTATCTTCAGCCGCCTCCTTGACAGTCTTC GGCAGGAAGGGTTCCTCACAGATGACTTGGTGAGCCAAGAGGAGAATGGTCAGCAACAGAAGTACTTGGGGGTGT GCCGGCTCCCAGGGCCAGGGCGCGCACCGGCGCCTGGACATCATCGTGGTGCCCTATAGCGAGTTTGCCTGTG CCCTGCTCTACTTCACCGGCTCTGCACACTTCAACCGCTCCATGCGAGCCCTGGCCAAAACCAAGGGCATGAGTC TGTCAGAACATGCCCTCAGCACTGCTGTGGTCCGGAACACCCATGGCTGCAAGGTGGGGCCTGGCCGAGTGCTGC CAGCTGGCTGAACCTCGCCGCTCCAACCACCAGCTTCCTCAGCGAGCAGGGCCCAGGGCTCTGGGCCTGAAGCAA GAGCCAGCCCGGCTCCCAGTGTCTGCCCGGCTCCCAGTGTCTGCCCAGCCCTCTCCCAGACAGGAGCAGGCTGCC ACCCCTTCTACCTCACCACTGCCCCTCGAAGAATTTTGCAAATGGCCCCTTGCCCCATTTTAAGCAGGAGCAGGT CAGGGGAGAGGGAAGCAGCCGTGCTGTCAACATCATCCGGCACCCTCTGGGGTAGGAGAACAGCCATTCCACATG TGTTCCCTCTATCCGTCCTGCTTCCTGGGCAGCTGGTGGTGCTGGGAATGGGGTGCCCCAGCCTTGGTGAGGACA 

MDPRGILKAFPKRQKIHADASSKVLAKIPRREEGEEAEEWLSSLRAHVVRTGIGRARAELFEKQIVQHGGQLCPA
QGPGVTHIVVDEGMDYERALRLLRLPQLPPGAQLVKSAWLSLCLQERRLVDVAGFSIFIPSRYLDHPQPSKAEQD
ASIPPGTHEALLQTALSPPPPPTRPVSPPQKAKEAPNTQAQPISDDEASDGEETQVSAADLEALISGHYPTSLEG
DCEPSPAPAVLDKWVCAQPSSQKATNHNLHITEKLEVLAKAYSVQGDKWRALGYAKAINALKSFHKPVTSYQEAC
SIPGIGKRMAEKIIEILESGHLRKLDHISESVPVLELFSNIWGAGTKTAQMWYQQGFRSLEDIRSQASLTTQQAI
GLKHYSDFLERMPREEATEIEQTVQKAAQAFNSGLLCVACGSYRRGKATCGDVDVLITHPDGRSHRGIFSRLLDS
LRQEGFLTDDLVSQEENGQQQKYLGVCRLPGPGRRHRRLDIIVVPYSEFACALLYFTGSAHFNRSMRALAKTKGM
SLSEHALSTAVVRNTHGCKVGPGRVLPTPTEKDVFRLLGLPYREPAERDW

 $\verb|CCTGCGCTCTGGCGGGGGGGGGGGCCTGCTGCTGCTCTACCTGGACATGCGGGCCCTCGGCCGC|\\$ CTGGCCCAGGTGTGCCGCTGCGGCGCTTCACCAGCTGCGATCTGCTCTGGCGCCGGATAGCCCGGGCCTCG CTCAACTCCGGCTTCACGCGGCTCGGCACCGACCTGATGACCAGTGTCCCAGTGAAGGAACGAGTGAAGGTGTCT CAGAACTGGAGACTGGGGCGCTGCCGAGAGGGGATTCTGCTGAAGTGGAGATGCAGTCAGATGCCCTGGATGCAG CTAGAGGATGATTCTCTGTACATATCCCAGGCTAATTTCATCCTGGCCTACCAGTTCCGTCCAGATGGTGCCAGC TTGAATCGTCGGCCTCTGGGAGTCTTTGCTGGGCATGATGAGGACGTTTGCCACTTTGTGCTGGCCAACTCGCAT ATTGTTAGTGCAGGAGGGGATGGGAAGATTGGCATTCATAAGATTCACAGCACCTTCACTGTCAAGTACTCGGCT GTGTGGCCTTTGGCCTCAGGCCGGCTGGGCCAGTCCTTACACACCATCCAGACTGAAGACCGAGTCTGGTCCATT GCTATCAGCCCATTACTCAGCTCTTTTGTGACAGGGACGGCTTGTTGCGGGCACTTCTCACCCCTGAGAATCTGG GACCTCAACAGTGGGCAGCTGATGACACACTTGGGCAGTGACTTTCCCCCAGGGGCTGGGGTGCTGGATGTCATG TATGAGTCCCCTTTCACACTGCTGTCCTGTGGCTATGACACCTATGTTCGCTACTGGGACCTCCGCACCAGCGTC TCTTACAACCTCCACGTCCTGGATTTTCAAAACCCATGA

MAAAAGEEEEEEAARESAARPAAGPALWRLPEELLLLICSYLDMRALGRLAQVCRWLRRFTSCDLLWRRIARAS LNSGFTRLGTDLMTSVPVKERVKVSQNWRLGRCREGILLKWRCSQMPWMQLEDDSLYISQANFILAYQFRPDGAS LNRRPLGVFAGHDEDVCHFVLANSHIVSAGGDGKIGIHKIHSTFTVKYSAHEQEVNCVDCKGGIIVSGSRDRTAK VWPLASGRLGQCLHTIQTEDRVWSIAISPLLSSFVTGTACCGHFSPLRIWDLNSGQLMTHLGSDFPPGAGVLDVM YESPFTLLSCGYDTYVRYWDLRTSVRKCVMEWEEPHDSTLYCLQTDGNHLLATGSSYYGVVRLWDRRQRACLHAF PLTSTPLSSPVYCLRLTTKHLYAALSYNLHVLDFQNP

## 3294/6881 FIGURE 3041A

AGGCAGAGAACGAGGACAGGACCCTTGGCCGTCTTCTTCCAGGGAACGAGAGGTCACAGCCTCGCTCTCCGCTTA GGCTTCTGGCGCCCCAGCTTAAAGCCGAGGCTGCGGCTGACAAAGGGCTCGCGCCGGTGCCGCCCCTTCTCAT TTGGAGCTGAAGCCCTCTCCAGGGCTCCGGGCCGGTGCCCCAACGGACAGAGGTCGAGGAGGACCCGCAGAGGTG TCCAACCCTGCCGCCTCTGCGGGGGCATCGCTGGAGCCGCCGGCAGCTCCGGCACCCGGAGAAGACAACCCCGCC GGGGCTGGGGGGGCGGGGGCTGCAGGAGGGGCTCGGCGGTTCCTCTGCGGTGTGGTAGGATTT TTGTATGCCCCAAAAGATGACTACAAACATAGGATGTTTTGGCGAGAGATGTATTCAGTGGAGGAAGCTGAGCAA CTTATGACTCTCATCTCTGCTGCACGAGAATATGAGATAGAGTTCATCTATGCGATCTCACCTGGATTGGATATC ACTTTTCTAACCCCAAGGAAGTATCCACATTGAAACGTAAATTGGACCAGGTTTCTCAGTTTGGGTGCAGATCA TTTGCTTTGCTTTTTGATGATATAGACCATAATATGTGTGCAGCAGACAAAGAGGTATTCAGTTCTTTTGCTCAT GCCCAAGTCTCCATCACAAATGAAATCTATCAGTACCTAGGAGAGCCAGAAACTTTCCTCTTCTGTCCCACAGAA TACTGTGGCACTTTCTGTTATCCAAATGTGTCTCAGTCTCCATATTTAAGGACTGTGGGTGAAAAGCTTCTACCT GGAATTGAAGTGCTTTGGACAGGTCCCAAAGTTGTTTCTAAAGAAATTCCAGTAGAGTCCATCGAAGAGGTTTCT AAGATTATTAAGAGAGCTCCAGTAATCTGGGATAACATTCATGCTAATGATTATGATCAGAAGAGAGACTGTTTCTG GGCCCGTACAAAGGAAGATCCACAGAACTCATCCCACGGTTAAAAGGAGTCCTCACTAATCCAAATTGTGAATTT GAAGCCAACTACGTTGCTATCCACACCCTTGCCACCTGGTACAAATCAAACATGAATGGAGTGAGAAAAGATGTA GTGATGACTGACAGTGAAGATAGTACTGTGTCCATCCAGATAAAATTAGAAAATGAAGGCAGTGATGAAGATATT GAAACTGATGTACTCTATAGTCCACAGATGGCTCTAAAGCTAGCATTAACAGAATGGTTGCAAGAGTTTGGTGTG  $\tt CCTCATCAATACAGCAGTAGGCAAGTTGCACACAGTGGAGCTAAAGCAAGTGTAGTTGATGGGACTCCTTTAGTT$ GCAGCACCCTCTTTAAATGCCACAACCGTAGTAACAACAGTTTATCAGGAGCCCATTATGAGCCAGGGAGCAGCC GTGGAAAAACAAGAAGAAACGGACCACAAGAATGACAATCAAATACTGAGTGAAATTGTTGAAGCGAAAATGGCA GAGGAATTGAAACCAATGGACACTGATAAAGAGAGCATAGCTGAATCAAAATCCCCAGAGATGTCCATGCAAGAA GAAAAGCCTTTGTACACTGCGGAACCAGTGACCCTGGAGGATTTGCAGTTACTTGCTGATCTATTCTACCTTCCT TACGAGCATGGACCCAAAGGAGCACAGATGTTACGGGAATTTCAATGGCTTCGAGCAAATAGTAGTGTTGTCAGT GTCAATTGCAAAGGAAAAGACTCTGAAAAAATTGAAGAATGGCGGTCACGAGCCAAGTTTGAAGAGATGTGT GGACTAGTGATGGGAATGTTCACTCGGCTCTCCAATTGTGCCAACAGGACAATTCTTTATGACATGTACTCCTAT GTTTGGGATATCAAGAGTATAATGTCTATGGTGAAGTCTTTTGTACAGTGGTTAGGGTGTCGTAGTCATTCTTCA GCACAATTCTTAATTGGAGACCAAGAACCCTGGGCCTTTAGAGGTGGTCTAGCAGGAGAGTTCCAGCGTTTGCTG CCAATTGATGGGGCAAATGATCTCTTTTTCAGCCACCTCCACTGACTCCTACCTCCAAAGTTTATACTATCAGA CCTTATTTTCCTAAGGATGAGGCATCCGTGTACAAGATTTGCAGAGAAATGTATGACGATGGAGTGGGTTTACCC TTTCAAAGTCAGCCTGATCTTATTGGAGACAAGTTAGTAGGAGGGCTGCTTTCCCTCAGCCTGGATTACTGCTTT GTCCTAGAAGATGAAGATGGCATATGTGGTTATGCCTTGGGCACTGTAGATGTGACCCCCTTTATTAAAAAATGT AAAATTTCCTGGATCCCCTTCATGCAGGAGAAGTATACCAAGCCAAATGGTGACAAGGAACTCTCTGAGGCTGAG AAAATAATGTTGAGTTTCCATGAAGAACAGGAAGTACTGCCAGAAACTTTCCTTGCTAATTTCCCTTCTCTGATA AAGATGGACATTCACAAAAAAGTAACTGACCCAAGTGTGGCCAAAAGCATGATGGCTTGCCTCCTGTCTTCACTG AAGGCTAATGGCTCCCGGGGAGCTTTCTGTGAAGTGAGACCAGATGATAAAAGAATTCTGGAATTTTACAGCAAG TTAGGATGTTTTGAAATTGCAAAAATGGAAGGATTTCCAAAGGATGTGGTTATACTTGGTCGGAGCCTGTGACAT TIGTTGACACTGTGAACTGTCCAAAAGTCTCTTAACTGCACCTTGTGAATGGTAGTTGAGGTCTTCATACAGTTC AGCCTCTAGAATGGTAACAAATCAGCCAATTGGATTCGAAACAAAGAAGACTATGTAAAACTCACCCATCACACT TTGAGACTACTCACTGGTTGGAAGAATATAGTATTGCAGCAAATCCTGTATGAAAGAGAGATGTGGGCTTCCTTT TTGAGTCTTGTGTTAGGTGCTGAGACCTTTTACATGGGCTTATACAGGGAGAGAGTCTTCAATAAATGTAGTCAG CACTATTTTCTGCATCCAGTGTGGTTGCGTTTCTCACCTGAGAGTAATCAAGATAACATCTGTCATCTTGG TTTATTGAGTGAAATGCCTCTCAGTCTTAGGGGACATGGCAGAGATGAAAGAAGAAGAAGAGTGGGTTTCAGAAGT

## 3295/6881 FIGURE 3041B

GTTATTCTGCTTTTTGTAAAGCCGTGGCCAATTGTCTCCTGTAATGACTGTTGGTTCAGGCATGTTGTACTTTGT AGGGACAAATGTGCATTTGTTTGTGGCAAAAGCCTACAATTGACAAACTTGTAAAATTTCTTTGTATATAAACTAG CTGTAACCTGACTATCCTTTGTGTTTACTGTTTTTGTAAATTTTTTTCCTCTATAAATGAAAGGGTGTTGGTTCA GAATGGCACTTTGAATAATGTAAACCAGTGAAAAGTGGATTTTCTTTACTTTTGTCTTTGGGTTTGGGGTTGTTT TTGTTCTTTTTGAAGTTTTATTATTTTTAAAGTGCCTCCCACCTAGGCGTAGGCCATGACCATTTGGGGTACGAG AGCCTAATTTTGTAGGACTTAATCTGTTGAAAAGTGCAGTTACTTCTGGAAATTAACCTCAATATTAGGTCAGCA TGTGAAATGTTGGATTTGACATGTCAGGTAGGGTTCAGGGACTGATTGGTCCCATTTGCCCTCAGGTCAGTTGTT TAATCTCAAGACCTGTTACTACTGATTTTATTAAATCAGAGTCTTTAATTCTTGCATGTTTGTATCTAATTTCTG AATGAATGAGCACACTTTAACCAGTTATTTACAGTTACCTTTTTCCTTTAACCGGATTGTGAAAGCTTCATGTAT TTTAATTTAGATTCTGTGTTTTTAAGGGTTCTGAGCATGAAGCTGGCAGATAGTCGGCAGGACTCATTTTTTCAT CATGGCTGGCTGATTTCTCCATAGATTGATAACAGTATTTTGTTATCTTGCTTCTCTGTAGTTTTGCATCAGCTG CACTAAATAGGTGAGAAGAAAGGAGAAGGTTTTTAGGTTAGAAACCTTTAACCGATAGAAGGATATGGTATGT TGTAAAGCTGGAACCAAGTTTGCATTTTTGAGGGCTTGAGATGAAGGGAAGACTCTTACCAGATAGTAAGACAGC CCTCATGGAATTCAGGATTTTTTAGCAAGTTTGCTTTTGGTTTTATCTTGGCTTTTAGTAATCATGTTGGCTGGT CTGGTCACAGGTGACTGTGAAACAGATGCCCTGGTCTTGCTTTCATCACTCTAGGATCATGAAGTGCTATGCTAT ACGAACTGTAAAAGACCATGCAAGAGGCAAAATAAAACTTGAAGTG

#### 3296/6881 FIGURE 3042A

GCCAGCGATCAGAGCAGCGCTGGGTGTTCAGGGGCCCAAG<u>ATC</u>GCGGCGCGCGGGGACGGAGAGACGGAGTCGCG CCGCCCCGAGTGGGGGCCCCGGTCCGGACCCTGGCGGGGAGCCCGCGGCAGTGGTTGGCGAAGTCGAAGCCAA GCGCCGTATGGGACTTTGGGCGCTGTGAGCGGCGGCGAGCAGGTGCTGCATGAGGAGGCGGGTGATTCTGGC TTTGTCAGTCTCTCTCGGCAGGGCCCATCTCTGAGGGACAAGGACCTGGAAATGGAGGAGCTAATGCTGCAGGAT GAGACACTGCTGGGGACCATGCAGAGCTACATGGATGCCTCCCTTATCTCCCTCATTGAGGATTTTGGGAGCCTT GGAGAGAGCAGGTTATCTCTGGAGGACCACAATGAAGTGTCGCTGCTCACGGCTCTGACGGAGATCTTGGACAAT GCAGATTCTGAGAACCTTTCTCCATTTGACAGCATTCCTGATTCGGAGCTGCTTGTGTCACCCCGGGAGGGCTCC TCTCTGCACAAGCTGCTTACTCTCTCGGACACCCCCAGAACGTGACCTCATCACCCCAGTTGACCCACTGGGG CCCAGTACGGCAGCAGTAGAGGGAGTGGGGTTGAAATGTCTCTTCCAGATCCCTCTTGGGACTTCTCCCCACCC TCTTTCTTAGAGACCTCTTCCCCCAAGCTTCCTAGCTGGAGACCCCCAAGATCAAGACCACGCTGGGGCCAATCC CCACCTCCCCAGCAGCGCAGTGATGGAGAAGAAGAGGAGGAGGTGGCCAGCTTCAGTGGCCAGATTCTTGCCGGG GAGCTTGACAACTGTGTGAGCAGTATCCCGGACTTCCCCATGCATTTGGCCTGCCCTGAGGAGGAAGATAAAGCA CACCCATACTGCCTGCCCAACCTCACCCACCTGGCATCACTTGAGGATGAGCTTCAGGAGCAGCCAGATGATTTG GTTGTGGTGCGACAGGTCTCCTGGACCCCGGCCTGTGCTCCTGGATGACTCGCTAGAGACTAGTTCTGCCTTG CAGCTGCTTATGCCTACACTGGAGTCAGAGACAGAGGCTGCTGTGCCCAAGGTAACCCTCTGCTCTGAGAAAGAG GGGTTGTCATTGAACTCAGAGGAGAAGCTGGACTCAGCCTGCTTATTGAAGCCCAGGGAGGTCGTGGAGCCGGTG GTGCCCAAGGAGCCTCAGAACCCACCTGCCAATGCAGCACCAGGTTCCCAGAGAGGCTCGAAAGGGCAGGAAGAAG AAGAGCAAGGAGCCAGCCAGCCTGTGTGGAAGGCTATGCCAGGAGGCTGAGGTCATCTTCTCGCGGGCAGTCT ACTGTAGGTACAGAAGTGACCTCTCAGGTAGACAACTTGCAGAAACAGCCTCAGGAAGAACTTCAAAAAGAGTCT GGGCCTCTCCAGGGTAAGGGGAAGCCCCGGGCTTGGGCTCGGGCCTGGGCAGCTGCCTTGGAGAATTCTAGCCCT AAGAACTTGGAGAGAGTGCTGGACAAAGTAGTCCTGCTAAAGAAGGCCCTCTAGACCTCTACCCAAAGCTGGCT GACCTTGCTTCAACCAGCTCAGAACTGGTTGAGCCTCTCCCGGCTGAGCCAGTGCTGATCAACCCAGTCCTGGCT GACTCAGCAGCAGTTGACCCTGCAGTGGTTCCCATCTCAGATAACTTGCCACCAGTTGATGCTGTCCCGTCTGGC CCAGCACCAGTTGATCTAGCACTGGTTGACCCTGTTCCTAATGACCTGACTCCAGTTGACCCAGTGCTAGTTAAG TCCAGACCAACTGATCCCAGACGTGGTGCAGTGTCATCAGCCCTGGGGGGGTTCAGCACCCCAGCTCCTCGTGGAG TCAGAGTCCTTGGACCCACAAAGACCATCATCCCTGAAGTCAAAGAGGTTGTGGATTCTCTGAAAATTGAAAGT GGTACCAGTGCTACAACCCATGAAGCCAGACCTCGGCCTCTCAGCTTATCTGAGTACCGGCGACGAAGGCAGCAA CGCCAAGCAGAAACAGAAGAGAAGTCCACAGCCCCCAACTGGGAAGTGGCCTAGCCTTCCAGAGACTCCCACA GGGCTGGCAGACATCCCTTGTCTTGTCATCCCACCAGCCCAGCCAAGAAGACAGCTCTGCAGAGAAGCCCCTGAA ACACCCTTGAGATTTGCCTTGTGCCTGTAGGTCCCAGCCCTGCTTCTCCTAGTCCTGAGCCACCTGTAAGCAAA CCTGTGGCCTCATCTCCCACTGAGCAGGTGCCATCCCAGGAGATGCCACTGTTGGCGAGACCTTCCCCTCCTGTG ATGCCCCCAGTCTGCCCCCACCTCCCTTGCAGCCTCCTAGTCTTCCATTGTCTATGGGGCCCAGTACTACCTGAT CCGTTTACTCACTATGCCCCCTTGCCATCCTGGCCTTGTTATCCTCATGTGTCCCCTTCTGGCTATCCTTGCCTG CCCCCCCACCAACGGTGCCCCTAGTGTCTGGTACTCCTGGTGCCTATGCCGTGCCTCCCACTTGCAGTGTGCCT TGGGCACCCCTCCTGCCCCAGTCTCACCTTACAGTTCCACATGTACCTATGGGCCCTTGGGATGGGGCCCAGGG CCTCAACATGCTCCATTCTGGTCTACTGTTCCCCCACCTCCTTTGCCTCCAGCCTCCATTGGGAGAGCTGTTCCC CAACCTAAAATGGAGTCTAGGGGCACTCCAGCTGGCCCTCCTGAAAATGTACTTCCCTTGTCGATGGCTCCTCCC TCTCCCCATCCGAAACACAAGGTGTCTGCCCTGGTGCAAAGTCCCCAGATGAAGGCTCTAGCATGTGTGTCTGCT GAAGGTGTGACTGTTGAGGAGCCTGCATCAGAGAGGCCTAAAGCCTGAGACCCAAGAGACCAGGCCCAGGGAGAAG GCCCGTCTAAGGAAGCTGTCCTTCCTGCCTACCCCACGTACTCAGGGTTCTGAAGATGTGGTACAGGCTTTCATC AGTGAGATTGGAATTGAGGCATCGGACCTGTCCAGTCTGCTGGAGCAGTTTGAGAAATCAGAAGCCAAAAAGGAG

## 3297/6881 FIGURE 3042B

TGTCCTCCGGCTCCTGCTGACAGCTTGGCTGTAGGAAACTCAGGCGGCGTTGACATTCCCCAGGAGAAGAG CCCCTAGACCGGTTACAAGCCCCAGAACTGGCCAACGTGGCAGGGCTCACCCCTCCAGCTACCCCTCCCCACCAG TTATGGAAGCCCCTGGCTGCTCTCACTGCTGGCCAAAGCCAAATCTCCTAAGTCCACCGCCCAGGAGGGAACC CTGAAGCCTGAAGGAGTTACGGAGGCCAAACATCCAGCTGCAGTTCGCCTCCAAGAAGGGGTCCATGGCCCTAGT GTCATTCCAGAGGTGGGCTCCCGATGGAATGTCAAGCGCCATCAGGACATCACCATCAAACCTGTCTTGTCCTTG GGCCCAGCTGCCCCCCCCCCCATGCATAGCTGCCTCCCGGGAGCCGCTTGATCACAGGACTAGCAGTGAGCAG GCAGATCCCTCAGCACCCTGCCTTGCCCCATCCAGCTTGCTGTCCCCTGAGGCCTCACCCTGCCGGAATGACATG  $\verb|AACACTAGGACTCCCCTGAACCCTCAGCCAAGCAGCGGTCAATGCGCTGTTACCGAAAAGCCTGCAGGTCAGCC|$ AGCCCCTCAAGCCAGGGCTGGCAGGGCCGCCGAGGCCGCAACAGCCGTTCTGTCAGCTCTGGGTCCAACCGGACT AGCGAAGCATCTTCCTCATCCTCATCGTCTTCCTCATCCCGATCTCGGTCCAGGTCCCTCTCCCCCCACAC AAGAGGTGGCGAAGGTCCAGCTGTAGTTCCTCTGGACGTTCTCGAAGATGCTCTTCCTCTTCTTCGTCATCATCT TCCTCTTCGTCTTCCTCATCCTCATCCAGGTTCTCGAAGCCGCTCACGATCCCCATCCCCCGCCGGAGAAGT GACAGGAGGCGGCGGTACAGCTCTTATCGTTCACATGACCATTACCAAAGGCAAAGAGTGCTACAAAAGGAGCGT GCAATAGAAGAAGAAGGTGGTCTTCATTGGAAAGATACCTGGCCGCATGACTCGATCAGAGCTGAAACAGAGG TTCTCCGTTTTTGGAGAGATTGAGGAGTGCACCATCCACTTCCGTGTCCAAGGGGACAACTACGGCTTCGTCACT GATCTCTGCTTTGGGGGCCGAAGGCAGTTCTGCAAGAGGAGCTATTCTGATCTTGACTCCAACCGGGAAGACTTT GACCCAGCACCTGTAAAGAGCAAATTTGATTCTCTTGACTTTGACACTTGTTGAAACAGGCCCAGAAGAACCTC AGGAGG<u>TAA</u>CCTTGGGCCCTTCCCTGCTATCCTTTTTCTCCTTTGGAGGTGCCCAACCTCCTCCACCCCTTCCC CTACTCTAGGGGAGAGAGCTGCTAGTGAGATGACTGTTTTATAAAGAAATGGAAAAAAGTGAAATAAAAAATATG TTGAATCAGATTTTTTAAAAGGGGTATTTGTTTTTTTATAACAGGTATTGAAACAAGTTAACTTGCATTCCTATG TAAGATAGGAGGGGCTGAGGGGATCCCCAGTGTTTGGAACATAAGTCACTATGCAGACTAATAAACATCAACTAG AGAGAGAAAAAAAAAAAAAAAAAAAAAAAA

## 3298/6881 FIGURE 3043

MAARRGRRDGVAPPPSGGPGPDPGGGARGSGWRSRSQAPYGTLGAVSGGEQVLLHEEAGDSGFVSLSRQGPSLRD KDLEMEELMLQDETLLGTMQSYMDASLISLIEDFGSLGESRLSLEDHNEVSLLTALTEILDNADSENLSPFDSIP DSELLVSPREGSSLHKLLTLSRTPPERDLITPVDPLGPSTGSSRGSGVEMSLPDPSWDFSPPSFLETSSPKLPSW RPPRSRPRWGQSPPPQQRSDGEEEEEVASFSGQILAGELDNCVSSIPDFPMHLACPEEEDKATAAEMAVPAAGDE SISSLSELVRAMHPYCLPNLTHLASLEDELQEQPDDLTLPEGCVVLEIVGQAATAGDDLEIPVVVRQVSPGPRPV LLDDSLETSSALQLLMPTLESETEAAVPKVTLCSEKEGLSLNSEEKLDSACLLKPREVVEPVVPKEPQNPPANAA PGSQRARKGRKKKSKEQPAACVEGYARRLRSSSRGQSTVGTEVTSQVDNLQKQPQEELQKESGPLOGKGKPRAWA  ${\tt RAWAAALENSSPKNLERSAGQSSPAKEGPLDLYPKLADTIQTNPIPTHLSLVDSAQASPMPVDSVEADPTAVGPV}$ LAGPVPVDPGLVDLASTSSELVEPLPAEPVLINPVLADSAAVDPAVVPISDNLPPVDAVPSGPAPVDLALVDPVP NDLTPVDPVLVKSRPTDPRRGAVSSALGGSAPQLLVESESLDPPKTIIPEVKEVVDSLKIESGTSATTHEARPRP LSLSEYRRRROORQAETEERSPOPPTGKWPSLPETPTGLADIPCLVIPPAPAKKTALORSPETPLEICLVPVGPS PASPSPEPPVSKPVASSPTEQVPSQEMPLLARPSPPVQSVSPAVPTPPSMSAALPFPAGGLGMPPSLPPPPLQPP SLPLSMGPVLPDPFTHYAPLPSWPCYPHVSPSGYPCLPPPPTVPLVSGTPGAYAVPPTCSVPWAPPPAPVSPYSS  ${\tt TCTYGPLGWGPGPQHAPFWSTVPPPPLPPASIGRAVPQPKMESRGTPAGPPENVLPLSMAPPLSLGLPGHGAPQT}$ EPTKVEVKPVPASPHPKHKVSALVQSPQMKALACVSAEGVTVEEPASERLKPETQETRPREKPPLPATKAVPTPR QSTVPKLPAVHPARLRKLSFLPTPRTQGSEDVVQAFISEIGIEASDLSSLLEQFEKSEAKKECPPPAPADSLAVG NSGGVDIPQEKRPLDRLQAPELANVAGLTPPATPPHOLWKPLAAVSLLAKAKSPKSTAOEGTLKPEGVTEAKHPA AVRLQEGVHGPSRVHVGSGDHDYCVRSRTPPKKMPALVIPEVGSRWNVKRHQDITIKPVLSLGPAAPPPPCIAAS REPLDHRTSSEQADPSAPCLAPSSLLSPEASPCRNDMNTRTPPEPSAKORSMRCYRKACRSASPSSOGWOGRRGR NSRSVSSGSNRTSEASSSSSSSSSSSSRSRSRSLSPPHKRWRRSSCSSSGRSRRCSSSSSSSSSSSSSSSSSSSS SRSRSPSPRRRSDRRRRYSSYRSHDHYQRQRVLQKERAIEERRVVFIGKIPGRMTRSELKQRFSVFGEIEECTIH FRVQGDNYGFVTYRYAEEAFAAIESGHKLRQADEQPFDLCFGGRRQFCKRSYSDLDSNREDFDPAPVKSKFDSLD FDTLLKQAQKNLRR

## 3299/6881 FIGURE 3044A

GTCGTGCTGCGCGACAACGGTAGTGACGCGTATTGCCTGGAGGATGGCGGACGCCGGCATTCGCCGCGTGGTTC CCAGCGACCTGTATCCCCTCGTGCTCGGCTTCCTGCGCGATAACCAACTCTCAGAGGTGGCCAATAAGTTCGCCA AAGCGACAGGAGCTACACAGCAGGATGCCAATGCCTCTTCCCTCTTAGACATCTATAGCTTCTGGCTCAAGTCTG CCAAGGTCCCAGAGCGAAAGTTACAGGCAAATGGACCAGTGGCTAAGAAAGCTAAGAAGAAGGCCTCATCCAGTG ACAGTGAGGACAGCAGCAGGAGGAGGAGGAAGTTCAAGGGCCTCCAGCAAAGAAGGCTGCTGTACCTGCCAAGC GAGTCGGTCTGCCTCCTGGGAAGGCTGCAGCCAAAGCATCAGAGAGTAGCAGCAGTGAAGAGTCCAGTGATGATG ATGATGAGGAGGACCAAAAGAAACAGCCTGTCCAGAAGGGAAGTTAAGCCCCAAGCCAAGGCAAAGCTCCTC CTAAGAAGGCCAAGAGCTCTGATTCTGATTCTGACTCAAGCTCCGAGGATGAGCCACCAAAGAACCAGAAGCCAA AGATAACACCTGTGACAGTTAAAGCTCAGACTAAAGCCCCTCCCAAACCAGCTCGAGCAGCACCTAAAATAGCCA ATGGTAAAGCAGCCAGTAGCAGCAGCAGCAGCAGCAGTAGCAGTGATGACTCAGAGGAGGAGAAGGCAG CAGCCACCCCAAGAAGGTCTGGACCATAACTTCTGTCAGGGCAGAGACTGTACCTAAAAAGCAAGTTGTGGCCA AGGCCCCAGTGAAAGCAGCTACCACCCCTACCCGGAAGAGTTCTAGCAGTGAGGATTCCTCCAGTGACGAGGAAG AGAAGTCTCTGGGAAACCCAGCCTCCCAAGAAGGCTGTGGAGAAGCAGCAGCCTGTGGAAAAGCAGTGAAGACAGCA GTGATGAGTCTGATTCAAGTTCTGAAGAAGAAGAAAACCCCCAACTAAGGCAGTAGTCTCTAAAGCAACCACTA AACCACCTCCAGCAAAGAAAGCAGCAGAGAGCTCTTCAGACAGCTCAGACTCTGACAGCTCTGAGGATGATGAAG CTCCTTCTAAGCCAGCTGGTACCACCAAGAATTCTTCAAATAAGCCAGCTGTCACCACCAAGTCACCTGCAGTGA AGCCAGCTGCAGCCCCCAAGCAACCTGTGGGCGGTGGCCAGAAGCTTCTGACGAGAAAGGCTGACAGCAGCTCCA GTGAGGAAGAGCAGCTCCAGTGAGGAGGAGAAGACAAAGAAGATGGTGGCCACCACTAAGCCCAAGGCGACTG CCAAAGCAGCTCTATCTCTGCCTGCCAAGCAGGCTCCTCAGGGTAGTAGGGACAGCAGCTCTGATTCAGACAGCT CCAGCAGTGAGGAGGAGGAGAGAGACATCTAAGTCTGCAGTTAAGAAGAAGCCACAGAAGGTAGCAGGAGGTG GTGAGGAAGAGGAAGAGCTCAAGGGCAAGGGCTCTCCAAGACCACAAGCCCCCAAGGCCAATGGCACCTCTG CACTGACTGCCCAGAATGGAAAAGCAGCTAAGAACAGTGAGGAGGAGGAAGAAGAAAAAGAAAAAGCCGGCAGTGG TAGTTTCCAAATCAGGTTCATTAAAGAAGCGGAAGCAGAATGAGGCTGCCAAGGAGGCAGAGACTCCTCAGGCCA AGAAGATAAAGCTTCAGACCCCTAACACATTTCCAAAAAGGAAGAAGGAGAAAAAAAGGGCATCATCCCCATTCC GAAGGGTCAGGGAGGAGAATTGAGGTGGATTCACGAGTTGCGGACAACTCCTTTGATGCCAAGCGAGGTGCAG CCGGAGACTGGGGAGAGCGAGCCAATCAGGTTTTGAAGTTCACCAAAGGCAAGTCCTTTCGGCATGAGAAAACCA AGAAGAAGCGGGGCAGCTACCGGGGAGGCTCAATCTCTGTCCAGGTCAATTCTATTAAGTTTGACAGCGAGTGAC GGTCTCTAGGTGAGGGTCTTGATGAGGACAGAAGTTTAGAGTAGGTCCTAAGACTTTACAGTGTAACATCCTCTC TGGTCCTTTTCTGTGTTCCTAGTTTTGTACAGACTTGTTTTTTGAGTGTTGAGTAGCAGGGACAAAATAAGGGAAT TATATTTATATTAAATCACTTACTATTGATTTTTGTTGTGTGATTTTCAAAGGTGGATTCCCACAGATAAAATCTT GGCTATTGCCCAAAACATAGTAAAGGGTCACGTGTGACTTTTTATAATAGGAAGAAAATTCTGCCTTTGTGAGTG CACATGTCCACATTTCATCCCTCCTTCCCTCAAAACCCTAGAGAGGGGGCATTAAAGAATTGTTGATGTATATGCA ATGTCTGTTAAGCATGCACTATGTATTTCATCCTCATTTATTGGGTCTGGGACTGAAGTTTTTAGCCAGCATGGA CCTAACCTACTTTTTGGGATAAAATTCTCTGTTTTGTTACAGGCAAAATTCTGGTATGGCGTGAATGCCATGGGT CATTCTGAATATTTTTTTCTGTAATTTTATCATTACACGATGTTTTGCAATACGTGCTTTGTTTTTTTAATTTGA AAGCAAACTTTTCTACTGTTGAAAGACATTTTTTGACAACTTGACCCTTCCTAGTATTGAGTTCTAAGTTGAGGA CTGCATCTTCTCGTTTTTTACAGTATAGAGAACAAAATGACATGAGTTTGAAAAATACATATCACTTGGTATTGC TGTCTTGGTTGCAGTGGTGATACAGAATTGGTTTCATTAATTCCTACATGGTTGAGAATCACTGATCAAGAAAGT GGGGGGAAAAAAAACGTTAAAACCTCAATCCTCAGTAGGAAGGTAGATTACATTAGGTGAAATTATAGGTA ATCTATGTATGTGCTAATGGGGTTGGAAAGAACCTTACAGAGCATATTACCTGATAAACTGGAGTGGGTTTGGGA GAACAAACTAATAGGATTATTGTGTCTCCTAGTTGGTACCTGGGAGCAATTGACATGCCCCCTTCAGAACCTTAA CTGTTAGTAGCAGTGGCTGTAACAACACAAACCAGTGACCAGAGATAACAGCTTTTAGGCCAAGCTGGCCTGACG GTATGGCTGCAGGAAGTGACTGAGCAGTAGCGGTACTCAGCCAGACCAAGACGGAGAGGGAAGAGTCCACAGCTT TCTGGAAGCTAAGGCATTCTGGTGGTAGAAAAGTGTGCCCCAAGCCTTCATGGACGAGTTATAGGTCTTAAGATT

# 3300/6881 FIGURE 3044B

 ${\tt AGTCTCCTCTTGTTTGGATTCCATACTTGCTAAATAACCTGATAATAACCTGGTTTTCCATGTAACTGCCTCTAG}$ GAAGAAAATGTACTGTTCATGCTGACACAGATATTTCAGTCTGCATGGTAAAAGTTCTAAATCTTACTACAAAAT AATAAACTGGCTGGTTTATAATGTG

## 3301/6881 FIGURE 3045A

GACAGGGAAGGTACCCGGCTCTACTGCCCGTCCCGGACGACTCATCCTGGCGGACTGTGCAGTCCCACCCTGACT CGCCTCCGGGGTGCGGCCTGGACATGAGCAGCGGCTGCCGGTCCTGGGACTAGGCCCCGCCATTTTGGATCCGCT GACAGGTTTGCCAAGATGGTGGATAAGAATATTTACATCATTCAAGGGGAGATTAACATTGTGGTTGGGGCCATC AAACGAAATGCCCGATGGAGCACCCATACACCACTGGATGAAGAACGGGATCCTCTGCTGCATAGTTTCGGTCAT CTAAAGGAGGTTTTAAACAGTATAACAGAACTCTCAGAAATTGAGCCCAATGTATTCCTTCGACCTTTTCTGGAA GTGATTCGCTCTGAAGATACCACTGGCCCTATCACTGGACTGGCACTCACCTCTGTCAACAAGTTCCTGTCCTAT GCACTCATAGATCCCACCCATGAGGGCACAGCAGAGGGCATGGAGAACATGGCAGATGCTGTCACCCATGCTCGT TTTGTGGGCACGGATCCTGCCAGTGATGAAGTTGTCCTGATGAAAATCCTTCAGGTTCTACGGACTCTGCTGCTA ATGAGGCTCAGTGAGTTATTGAGAAAATCCGCAGAGCACACTCTCGTAGACATGGTGCAGCTGCTCTTCACAAGG TTACCTCAGTTTAAAGAAGAACCCAAGAACTATGTGGGGACCAACATGAAGAAGCTGAAAAATGAGAGCCGGAGGC ATGAGTGATTCATCCAAATGGAAGAAACAGAAGAGATCCCCTCGGCCCCACGCCATATGACCAAAGTCACCCA GGTTCAGAGCTGCCCACTCCCAATGGAACCACCTTATCATCTAACCTCACTGGTGGCATGCCCTTCATTGATGTG TTCTCCTCCCAAACCACTTCCAAGGAAGACCTTACTGATCTAGAGCAACCTGGCTCTCCAGGGTACAGCACAGCT ACAGAGCCTGGAAGCAGTGAGCTAGGTGTTCCCGAGCAGCCTGACCTCCAGGAAGGGACCCATGTGGAAAAGTCC CAGTCAGCATCTGTGGAGTCCATCCCTGAAGTGTTAGAGGAGTGCACGTCCCCTGCCGACCACTCTGACTCTGCC TTGGTCCCCTATGGTCTTCCCTGCATCCGCGAGCTCTTCCGCTTCCTCATCTCCCTCACCAATCCACACGACCGC CATAACTCAGAGGTTATGATTCACATGGGACTGCATTTGCTGACAGTGGCCCTTGAGTCAGCCCTGTAGCCCAG TGCCAGACCCTCTTGGGCCTCATCAAGGATGAGATGTGCCGTCACTTATTCCAGCTACTCAGCATAGAGCGACTA AACCTTTATGCTGCTTCCCTGCGAGTATGCTTCCTACTGTTTGAGAGCATGCGAGAGCACCTCAAGTTCCAAATG GAGATGTACATCAAAAAGCTTATGGAGATCATCACTGTGGAGAACCCCAAGATGCCTTATGAGATGAAGGAGATG GCACTGGAGGCCATTGTGCAGCTCTGGCGCATCCCCAGCTTTGTCACAGAGCTCTACATCAACTATGATTGTGAC TACTACTGTTCCAACCTCTTTGAGGAACTCACAAAGCTGCTGTCCAAGAATGCCTTCCCTGTGTCTGGTCAACTC TATACAACACACCTACTATCTCTTGATGCCCTATTGACAGTGATTGACAGCACCGAGGCCCACTGCCAGGCTAAA GTCCTCAACAGCCTCACCCAGCAAGAGAAGAAGGAGACAGCCAGACCAAGCTGTGAGATAGTAGATGGCACCCGA GAAGCTAGCAATACTGAGAGAACTGCCAGCGATGGGAAAGCTGTAGGCATGGCCTCAGACATCCCAGGCCTGCAT CTGCCAGGTGGAGGGCGGCTGCCACCAGAACATGGGAAATCAGGATGCAGTGATCTGGAGGAAGCTGTTGACTCT GGGGCTGACAAAAAGTTTGCCCGGAAGCCACCCCGATTTTCCTGTCTCCCGGCAGATCCACGGGAACTAATTGAA ATTAAAAACAAAAGAAGCTGCTAATCACTGGCACAGAGCAGTTCAATCAGAAACCAAAGAAGGGGGATTCAGTTT CTGCAAGAGAAAGGCCTCCTCACCATCCCAATGGACAACACAGAGGTTGCTCAGTGGCTCCGAGAGAACCCTCGG CTGGACAAGAAGATGATTGGAGAGTTTGTGAGTGACCGCAAAAACATTGACCTGTTGGAGAGCTTTGTGAGCACC TTCAGTTTTCAGGGTCTGCGACTGGACGAAGCCCTCCGCCTCTACCTGGAAGCCTTCCGTTTGCCTGGGGAAGCA CCAGTCATCCAGAGGTTGCTGGAGGCATTCACAGAGCGTTGGATGAATTGTAATGGCTCCCCATTTGCCAATAGC GATGCCTGCTTTTCCCTGGCCTATGCTGTCATCATGCTTAATACTGACCAGCACAACCACAATGTTCGTAAACAG AATGCACCCATGACCCTGGAGGAGTTTCGCAAAAATCTGAAAGGTGTGAATGGAGGCAAGGACTTTGAGCAAGAC ATCCTGGAGGACATGTACCATGCCATCAAGAATGAGGAAATTGTAATGCCTGAGGAGCAGACAGGCTTGGTTCGG GAGAACTATGTGTGGAATGTGCTGCTTCATCGAGGTGCCACCCCTGAGGGCATATTCCTGCGTGTGCCTACTGCC AGCTATGATCTTGACCTCTTCACCATGACCTGGGGCCCCACTATTGCTGCTCTCTTTATGTCTTTGACAAAAGC CTTGAGGAGACAATCATCCAGAAAGCCATCTCAGGCTTCAGGAAGTGCGCCATGATCTCCGCCCACTATGGCCTC AGCGATGTGTTTGACAATCTCATCATCTCTCTATGCAAATTCACAGCTCTCAGCAGTGAGTCTATTGAGAACCTG CCCAGTGTATTTGGAAGCAACCCTAAAGCCCATATTGCAGCCAAGACAGTATTCCATTTGGCCCATCGTCATGGT GACATCCTGCGGGAGGCTGGAAGAATATCATGGAGGCCATGCTGCAGCTCTTCCGAGCCCAACTACTGCCCAAG GCTATGATAGAGGTAGAAGATTTCGTGGATCCCAATGGCAAGATCTCTCTACAGCGGGAAGAGACACCATCAAAC CGAGGAGAGTCAACAGTGCTGAGCTTTGTGAGCTGGCTAACACTGAGTGGTCCTGAGCAGTCTAGTGTTCGGGGC CCATCCACTGAAAACCAAGAGGCCAAGAGAGTGGCCTTAGAGTGTATAAAGCAATGTGACCCAGAAAAAATGATC

## 3302/6881 FIGURE 3045B

ACAGAAAGCAAGTTCCTCCAGCTGGAGTCACTACAGGAGCTCATGAAGGCTCTGGTCTCAGTGACACCAGATGAA GAGACATATGATGAGGAAGATGCTGCTTTCTGCCTAGAGATGCTGCTAAGGATTGTTGTTGGAGAACAGGGATCGT GTGGGCTGTGTGGCAGACTGTTCGAGACCATCTATACCACCTCTGTGTTCAGGCACAAGATTTCTGCTTCCTT GTGGAGCGGGCAGTGGTGGGGTTGCTACGCCTGGCCATTCGGCTTCTCCGGAGAGAAGAGATCAGTGCTCAGGTG CTGCTCTCCCTGCGCATTTTGCTACTGATGAAGCCCAGTGTGCTATCCCGAGTCAGCCACCAGGTTGCGTATGGG CTCCATGAACTCCTGAAGACCAATGCAGCCAACATCCACTCAGGTGATGACTGGGCCACACTCTTCACACTGCTG GAGTGCATCGGCTCAGGTGTGAAGCCTCCAGCTGCTCTGCAGGCCACAGCCAGGGCAGATGCACCTGATGCCGGG GCCCAGTCAGATAGTGAGCTCCCATCCTACCATCAGAATGACGTGAGCCTGGATCGAGGGTACACTTCCGACTCA GAGGTCTACACTGACCATGGCAGGCCGGGCAAGATACACCGATCAGCCACAGATGCCGATGTGGTCAACAGTGGT TGGTTAGTGGTTGGGAAGGATGACGTTGATAACTCCAAGCCAGGGCCCAGCCGCCCAGGCCCTTCACCCCTGATC AATCAATACAGCCTAACAGTGGGACTGGATTTGGGGCCACACGACACTAAGTCTCTGCTTAAGTGTGTGGAATCG CTGTCCTTCATCGTGCGTGATGCTGCCCACATCACACCTGACAACTTTGAGCTCTGCGTCAAGACTCTCCGGATC TTTGTGGAGGCCAGTCTGAATGGCGGATGCAAGTCCCAGGAGAAACGTGGCAAGAGTCACAAATATGACAGCAAA GGGAACCGCTTCAAGAAGAAATCCAAAGAGGGATCAATGCTTCGCCGGCCTCGAACCTCCAGCCAACATGCCTCT CGCCACCTGGAGACAGGTGGCCAGAAGATTGAAGCTGATTCTCGCACCCTCTGGGCCCACTGCTGGTGCCCTTTA CTGCAGGGTATTGCCTGCCTGTGCTGCGATGCCCGGCGCCAGGTACGGATGCAGGCACTGACCTATCTGCAGCGA GCACTACTTGTACATGATCTGCAAAAGCTAGATGCCCTGGAATGGGAGTCCTGTTTTAACAAGGTGCTGTTTCCT ACATTGCTCTCAAGGTCTTCCTGCAGCACCTGTCTCCACTGTTCACCTCTACCTTTTGCGGCCCTCTGGCTC ACCATCTTGGACTTCATGGACAAGTACATGCACGCAGGCTCCAGCGACTTACTGTCAGAGGCGATCCCTGAGTCT CTGAAGAACATGCTTCTGGTGATGGACACAGCGGAGATTTTCCACAGTGCAGATGCACGGGGAGGCGGCCCCTCG GCCCTCTGGGAGATCACCTGGGAACGCATTGACTGTTTTCTCCCTCACCTACGAGATGAACTCTTCAAGCAGACC GTCATCCAGGACCCCATGCCCATGGAGCCTCAAGGCCAAAAGCCTCTCGCCTCAGCCCACCTGACTTCCGCTGCT GGCGACACTAGGACACCTGGCCATCCACCGCCCCAGAGATTCCATCTGAGCTGGGGGCCTGTGACTTTGAGAAG CCCGAGAGCCCCCGAGCCGCCAGCAGCTCCCCAGGATCACCAGTGGCCTCAAGCCCCAGCAGGCTGAGCCCC ACCCCGACGGCCTCCACCCTTGGCTCAGCCCCCACTGATCCTGCAGCCCTTGGCCTCCCCACTGCAGGTGGGC GTGCCACCTATGACTCTGCCCATCATCCTCAACCCTGCGCTCATCGAGGCCACCTCACCAGTGCCCCTCCTGGCC ACACCCCGCCCCACAGATCCCATACCCACCTCTGAGGTCAACTTCCCACCAGGCTTTCCTTGACCCCACTTCTGGCTGTCCTGCGGGCCACAAGCTCTTCAGGCCAAGTCAGAGCTG CTGTTGCTGCCACTTGGATGGGGACCTGAAAAAGAGAATGTTGATAGCCCCAGCTAAGACCCCCAATCAGCTGTG GGACCTTTTTCCTCCTCTGCGCTCCATTCCTGGGGGTTCAGCCTGAGAGTGAACTCAGCTGTCATCTGCAGCCTC AACTAAGCCCAACCACTCTGCACTTTGTTTCCCACTCCCATTAGCCCTGGGCCACCTCCTCCAGTTCTTCCTCTT TGCCCACAGGAGCATGTACATATGGAAAAACAGAACAACAGTGGACTTTTTATGATATAATAAATGTCTTAGTAC

MVDKNIYIIQGEINIVVGAIKRNARWSTHTPLDEERDPLLHSFGHLKEVLNSITELSEIEPNVFLRPFLEVIRSE DTTGPITGLALTSVNKFLSYALIDPTHEGTAEGMENMADAVTHARFVGTDPASDEVVLMKILQVLRTLLLTPVGA HLTNESVCEIMQSCFRICFEMRLSELLRKSAEHTLVDMVQLLFTRLPOFKEEPKNYVGTNMKKLKMRAGGMSDSS KWKKQKRSPRPPRHMTKVTPGSELPTPNGTTLSSNLTGGMPFIDVPTPISSASSEAASAVVSPSTDSGLEFSSOT TSKEDLTDLEQPGSPGYSTATEPGSSELGVPEQPDLQEGTHVEKSQSASVESIPEVLEECTSPADHSDSASVHDM DYVNPRGVRFTQSSQKEGTALVPYGLPCIRELFRFLISLTNPHDRHNSEVMIHMGLHLLTVALESAPVAOCOTLL GLIKDEMCRHLFQLLSIERLNLYAASLRVCFLLFESMREHLKFQMEMYIKKLMEIITVENPKMPYEMKEMALEAI VQLWRIPSFVTELYINYDCDYYCSNLFEELTKLLSKNAFPVSGQLYTTHLLSLDALLTVIDSTEAHCOAKVLNSL  ${\tt TQQEKKETARPSCEIVDGTREASNTERTASDGKAVGMASDIPGLHLPGGGRLPPEHGKSGCSDLEEAVDSGADKK}$ FARKPPRFSCLLPDPRELIEIKNKKKLLITGTEQFNQKPKKGIQFLQEKGLLTIPMDNTEVAQWLRENPRLDKKM  ${\tt IGEFVSDRKNIDLLESFVSTFSFQGLRLDEALRLYLEAFRLPGEAPVIQRLLEAFTERWMNCNGSPFANSDACFS}$ LAYAVIMLNTDQHNHNVRKQNAPMTLEEFRKNLKGVNGGKDFEQDILEDMYHAIKNEEIVMPEEQTGLVRENYVW NVLLHRGATPEGIFLRVPTASYDLDLFTMTWGPTIAALSYVFDKSLEETIIQKAISGFRKCAMISAHYGLSDVFD NLIISLCKFTALSSESIENLPSVFGSNPKAHIAAKTVFHLAHRHGDILREGWKNIMEAMLQLFRAQLLPKAMIEV .EDFVDPNGKISLQREETPSNRGESTVLSFVSWLTLSGPEQSSVRGPSTENQEAKRVALECIKQCDPEKMITESKF LQLESLQELMKALVSVTPDEETYDEEDAAFCLEMLLRIVLENRDRVGCVWQTVRDHLYHLCVQAQDFCFLVERAV VGLLRLAIRLLRREEISAQVLLSLRILLLMKPSVLSRVSHQVAYGLHELLKTNAANIHSGDDWATLFTLLECIGS GVKPPAALQATARADAPDAGAQSDSELPSYHQNDVSLDRGYTSDSEVYTDHGRPGKIHRSATDADVVNSGWLVVG  ${\tt KDDVDNSKPGPSPLINQYSLTVGLDLGPHDTKSLLKCVESLSFIVRDAAHITPDNFELCVKTLRIFVEAS}$ LNGGCKSQEKRGKSHKYDSKGNRFKKKSKEGSMLRRPRTSSQHASRGGQSDDDEDEGVPASYHTVSLQVSQDLLD LMHTLHTRAASIYSSWAEEQRHLETGGQKIEADSRTLWAHCWCPLLQGIACLCCDARRQVRMOALTYLORALLVH DLQKLDALEWESCFNKVLFPLLTKLLENISPADVGGMEETRMRASTLLSKVFLQHLSPLLSLSTFAALWLTILDF  ${\tt MDKYMHAGSSDLLSEAIPESLKNMLLVMDTAEIFHSADARGGGPSALWEITWERIDCFLPHLRDELFKQTVIQDP}$ MPMEPQGQKPLASAHLTSAAGDTRTPGHPPPPEIPSELGACDFEKPESPRAASSSSPGSPVASSPSRLSPTPDGP PPLAQPPLILQPLASPLQVGVPPMTLPIILNPALIEATSPVPLLATPRPTDPIPTSEVN

 $\verb|CTCGTTGGTGGGGGTTGAGAGCTGCACCGCGGGGACAAGTCGCCGGCGGCGCCCGACGGAGCAGAAGA| \\$ GAGAGCATGGAGCTGGAGAGGATCGTCAGTGCAGCCCTCCTTGCCTTTGTCCAGACACACCTCCCGGAGGCCGAC CTCAGTGGCTTGGATGAGGTCATCTTCTCCTATGTGCTTGGGGTCCTGGAGGACCTGGGCCCCTCGGGCCCATCA GAGGAGAACTTCGATATGGAGGCTTTCACTGAGATGATGGAGGCCTATGTGCCTGGCTTCGCCCACATCCCCAGG GGCACAATAGGGGACATGATGCAGAAGCTCTCAGGGCAGCTGAGCGATGCCAGGAACAAAGAGAACCTGCAACCG CAGAGCTCTGGTGTCCAAGGTCAGGTGCCCATCTCCCCAGAGCCCCTGCAGCGCCCGAAATGCTCAAAGAAGAG ACTAGGTCTTCGGCTGCTGCTGCAGACACCCAAGATGAGGCAACTGGCGCTGAGGAGGAGCTTCTGCCAGGG GACCTGCCCAGACGCCTCAGAGGCCCCCAAAAGGATGAGCTGAAGTCCTTCATCCTGCAGAAGTACATGATGGTG GATAGCGCATAGTATCAGAAGATTCACCGGCCCATGGCTCCCAAGGAGGCCCCCAAGAAGCTGATCCGATACATC GACAACCAGGTAGTGAGCACCAAAGGGGAGCGATTCAAAGATGTGCGGAACCCTGAGGCCGAGGAGATGAAGGCC ACATACATCAACCTCAAGCCAGCAGAAAGTACCGCTTCCATTGAGGCACTCGCCGGACTCTGCCCGAGCCTTCT AGGCTCAGATCCCAGAGGGATGCAGGAGCCCTATACCCCTACACAGGGGCCCCCTAACTCCTGTCCCCCTTCTCT ACTCCTTTGCTCCATAGTGTTAACCTACTCTCGGAGCTGCCTCCATGGGCACAGTAAAGGTGGCCCAAGGAAAAA AAAAAAAAAAAAAAAAA

MELERIVSAALLAFVQTHLPEADLSGLDEVIFSYVLGVLEDLGPSGPSEENFDMEAFTEMMEAYVPGFAHIPRGT IGDMMQKLSGQLSDARNKENLQPQSSGVQGQVPISPEPLQRPEMLKEETRSSAAAAADTQDEATGAEEELLPGVD VLLEVFPTCSVEQAQWVLAKARGDLEEAVQMLVEGKEEGPAAWEGPNQDLPRRLRGPQKDELKSFILQKYMMVDS A

## 3306/6881 FIGURE 3049

GCGCTAGCGGCGGCCCGGCTGGGCAGTTCCTTCCCCAGAAGGAGAGATTCCTCTCCCATGGAGTCCTACGATGT GATCGCCAACCAGCCTGTCGTGATCGACAACGGATCCGGTGTGATTAAAGCTGGTTTTTGCTGGTGATCAGATCCC CAAATACTGCTTTCCAAACTATGTGGGCCGACCCAAGCACGTTCGTGTCATGGCAGGAGCCCTTGAAGGCGACAT CTTCATTGGCCCCAAAGCTGAGGAGCACCGAGGGCTGCTTTCAATCCGCTATCCCATGGAGCATGGCATCGTCAA GGATTGGAACGACATGGAACGCATTTGGCAATATGTCTATTCTAAGGACCAGCTGCAGACTTTCTCAGAGGAGCA TCCTGTGCTCCTGACTGAGGCGCCTTTAAACCCACGAAAAAAACCGGGAACGAGCTGCCGAAGTTTTCTTCGAGAC GGTGCTGGATTCTGGGGATGGAGTCACCCATGCTGTGCCCATCTATGAGGGCTTTGCCATGCCCCACTCCATCAT GCGCATCGACATCGCGGGCCGGGACGTCTCTCGCTTCCTGCGCCTCTACCTGCGTAAGGAGGGCTACGACTTCCA CCGGGCCCCTGAGTTGCTCTTCAGGCCAGATTTGATTGGAGAGGAGAGTGAAGGCATCCACGAGGTCCTGGTGTT CGCCATTCAGAAGTCAGACATGGACCTGCGGCGCACGCTTTTCTCTAACATTGTCCTCTCAGGAGGCTCTACCCT TGCACCTCAGGAGAGACTGTATTCCACGTGGATTGGGGGGCTCCATCCTTGCCTCCCTGGACACCTTTAAGAAGAT  ${\tt CATCTTCACCTCTCTGAAGTTAACTCCACTTTAAAACTCGCTTTCTTGAGTCGGAGTGTTTGCGAGGAACTGC}$ AGAAAGGACGATGAACTACCTGCAGTGGTGATGGCCTGAGGCCTGGGGTTGACCACTAACTGGCTCCTGACAGGG AGGGAGACAGAGGGAGGTAAGCCATCCCCGGGAGACCTTGCTGCTGACCATCCTAGGCTGGGCTGGCCCCACCC TCACCCCCACCCCAGGGTGCCCTGAGGCCCCAGGCAGCTGCTGCCTCCACTATCGATGCCTCCTGACTGCACAC TGAGGACTGGGACTGGGTTGAGTTCTGTCTGGTTTTGTTGCCATTTTGGTTTGGGAGGCTGGAAAAGCACCCCA AGAGCTATTACAGAGACTGGAGTCAGGAGAGAGCAGGAGGCCCTCATGTTCACCAGGGAACAGGACCACCGGC CACTGGAGGAGGAGCAGTCCTCACTCTGAATGGCTGCAGAGTTAATGTTCCCAGCCCAGTCCCCTTTCGG GGGCCTTGGGAGAGTTTAAGGCACCTGCTGGTTCCAGGACCTCGCTTTCCATCTGTTCTTGTTGCAATGCCATCT TCAAACCGTTTTATTTATTGAAGTGTTTGTTCAGTTAGGGGCTGGAGAGAGGGGAGCTTGCTGCCTCCTGCCTTGC TACACTAATGTTTACAGCACCTAAGCTTAGCCTCCAGGGCCCCACCTCTCCCAGCTGATGGTGAGCTGACAGTGT CCACAGGTTCCAGGACCATTTGAGATTGGAAGCTACACTCAAAGACACTCCCACCAGGCTCTTTCTCCCTTTTCC TCTTGCTCACTGCCCTGGAATCAACAGGCTGGTTGCTGGTTAGATTTTCTGAAACAGGAGGTAAAATTTTTCTTT GGCAGAGGCCCCTAAGCAAGGGAGGGGTGTTGGAGAGCCAGTGCCCTTAAGACTGGAGAAAGCTGCAATTTACCA AGTTGCCTTTTGCCACTGTAGCTGACCAGGGGACTAGGTTGTAGAGGTGGGAAGGCCCCCTCTGGGCTGATCTTG AGGCCTGACTCCTAGGAGTGGTCCAAAGGCCTTCAGCCTAGATGGTGCAAAGCTGGGGCCAGCCTGTCTTCACCG GCACCCTCACCTGTGACACCAAGACCCACCCCAATCCCAGACTTCACACAGTATTCTCCCCCACGCCGTCCTATG ACCAAAGGCCCCTGCCAGGTGTGGGCCACAGCAGCAGGTATGTGTGAAAGCAACGTAGCGCCCCGCGGACTGCAG TGCGCTTAACCAACTCACCTCCCTTCTCTTAGCCCAAGCCTGTCCCTCGCACAGCCTCGCACAAACCACATTGCC TGGTGGGCCCAGTGTACTGAAATAAAGTCGTTCCGATAGACACGTC

# 3307/6881 FIGURE 3050

MESYDVIANQPVVIDNGSGVIKAGFAGDQIPKYCFPNYVGRPKHVRVMAGALEGDIFIGPKAEEHRGLLSIRYPM EHGIVKDWNDMERIWQYVYSKDQLQTFSEEHPVLLTEAPLNPRKNRERAAEVFFETFNVPALFISMQAVLSLYAT GRTTGVVLDSGDGVTHAVPIYEGFAMPHSIMRIDIAGRDVSRFLRLYLRKEGYDFHSSSEFEIVKAIKERACYLS INPQKDETLETEKAQYYLPDGSTIEIGPSRFRAPELLFRPDLIGEESEGIHEVLVFAIQKSDMDLRRTLFSNIVL SGGSTLFKGFGDRLLSEVKKLAPKDVKIRISAPQERLYSTWIGGSILASLDTFKKMWVSKKEYEEDGARSIHRKT

#### 3308/6881 FIGURE 3051A

CGGAGCTGCGGCCTAGCGGCCCCCGGCCCCACCGCCCCCGGCCCCTGGCCCGACTGCCCCCCCGGCCTTCG CTTCGCTCTTTCCCCCGGGACTGCACGCCATCTACGGAGAGTGCCGCCGCCTTTACCCTGACCAGCCGAACCCGC TCCAGGTTACCGCTATCGTCAAGTACTGGTTGGGTGGCCCAGACCCCTTGGACTATGTTAGCATGTACAGGAATG TGGGGAGCCCTTCTGCTAACATCCCCGAGCACTGGCACTACATCAGCTTCGGCCTGAGTGATCTCTATGGTGACA ACAGAGTCCATGAGTTTACAGGAACAGATGGACCTAGTGGTTTTGGCTTTGAGTTGACCTTTCGTCTGAAGAGAG AAACTGGGGAGTCTGCCCCACCAACATGGCCCGCAGAGTTAATGCAGGGCTTGGCACGATACGTGTTCCAGTCAG AGAACACCTTCTGCAGTGGGGACCATGTGTCCTGGCACAGCCCTTTGGATAACAGTGAGTCAAGAATTCAGCACA TGCTGCTGACAGAGGACCCACAGATGCAGCCCGTGCAGACACCCTTTGGGGTAGTTACCTTCCTCCAGATCGTTG GTGTCTGCACTGAAGAGCTACACTCAGCCCAGCAGTGGAACGGGCAGGGCATCCTGGAGCTGCTGCGGACAGTGC AAGAGAGTTGACAAAGGCATCGAGACAGATGGCTCCAACCTGAGTGTCAGTGCCAAGTGTGCCTGGGATG ACCTGAGCCGGCCCCCGAGGATGACGAGGACAGCCGGAGCATCTGCATCGGCACACAGCCCCGGCGACTCTCTG GCAAAGACACAGAGCAGATCCGGGAGACCCTGAGGAGAGGACTCGAGATCAACAGCAAACCTGTCCTTCCACCAA TCAACCCTCAGCGGCAGAATGGCCTCGCCCACGACCGGGCCCCGAGCCGCAAAGACAGCCTGGAAAGTGACAGCT CCACGGCCATCATTCCCCATGAGCTGATTCGCACGCGGCAGCTTGAGAGCGTACATCTGAAATTCAACCAGGAGT  $\tt CCGGAGCCCTCATTCCTCTGCCTAAGGGGCAGGCTCCTGCATGGACGGCACTTTACATATAAAAGTATCACAGGCCACTTTACATATAAAAGTATCACAGGCCACTTTACATATAAAAGTATCACAGGCCACTTTACATATAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAGTATCACAGGCCACTTTACATATAAAAAAGTATCACAGGCCACTTTACATATAAAAAAGTATCACAGGCCACTTTACATATAAAAAAGTATCACAGGCCACTTTACATATAAAAAAGTATCACAGGCCACTTTACATATAAAAAAGTATCACAGGCCACTTTACATATAAAAAAGTATCACAGGCCACTTTACATATAAAAAAGTATCACAGGCCACTTTACATATATAAAAAAGTATCACAGGCCACTTTACATATAAAAAAAGTATCACAGGCCACGCACTTTACATATAAAAAAGTATCACAGGCCACAGGCCACTTTACATATAAAAAAGTATCACAGGCCACGCACATAGGACAGCCACAGGCCACAGGCCACTTTACATATAAAAAAGTATCACAGGCACAGGCACAGAGGCACAGGCACAGAGGCACAGAGAGAGAGAGAGAGAGAGAGAGA$ GTGACATGGCCATCACGTTTGTCTCCACGGGAGTGGAAGGCGCCTTTGCCACTGAGGAGCATCCTTACGCGGCTC ATGGACCCTGGTTACAAATTCTGTTGACCGAAGAGTTTGTAGAGAAAATGTTGGAGGATTTAGAAGATTTGACTT TGACTTCCAGTGTAACAGTTGTGTCAACGAGATCTCCACAAATAAAAGGACAAGTGTGAGGAAGACTGCGCAGTG CCACCCGCAGCCCAGTGGGGTGCCATGCACAGGCCACAGGCCCTCCACCTCAGCTCAGGTCAGGGGCCGCACC ACAGATTCTGGTTTGAGGTTTGACTCTGGACCCTGGCTGTGCCCCTAGGTGGAGACAGCCCTCTTTCTCACCTAC CCCCTGCCGCACAGCCCAGCAGGAGGGAGGCGACAGCCAGATGCAGAGCGAGTGGATGCACTTCCCAGCTCATC TCTGGAAGCCTTTGCTACTCAAGCTCCTCTGGCCGCGGAACAATTCCTCTGATCATGTTTGGTTTTCTTCTTCCT TATTTTATTTTGTAGAAACCGGGTGGTATTTTATTGCTCTGCAAAGATGTCCAGAAGCCATGTATATAATGTTTT TTAAACAGAACTTCATTCCCCGTTGAACTTTCGCATTCTCTGACAGAGGCCTAGGGCTGTATCTCTCCCTGGGCT GCCACCAGAGAAGGTGCTTGGTGTTCGCCTGCCAGCCCAGAGCCCTGGAGGAGCCGGCTGCACAGAGAGGCTTTT CTTCCCAGCTGGGCCTGATGGAGCCCGGGGCAGGGGGAGAGTAGAGACACTCCCTTGTGCAGCTTTGAGCCTAGT TTAGCTGGGGCCAGGGAGGGGTGCTACTGTTTTCCAAGTGAATGGGTCTCAAAGACTTGGTGACCCCAGCCTCAT CTTCTAGGCCTTTTCCATCCAACCAGGCCTACCTGGGAGAGGGTGAGGTTCAGCACATCACACCATCCCCACT GTCATTCAGGGCCTGGGTCTCCAGCTCTGTAACCAGTCCTGTCCCATTTCCTCAGTCCCTGGGCCTCCCAGCCTT CAGGCTGTAGGGCTGCCTTACTAAAATTGAAAAATCCACCTCTTAACATCTCTTTCACTTTGGTTTTGCTAACAC TGCTCTCTGCTGCCCTCCCATCCTCCTGTATCCATTCATGCCCTATCTTTCATTCTCCACTCCTAATCCCTCTC CTTTCTGGCATCCTGGCCTCTCGTGGTCCTCAGCCCCTCACCCCCAGTACTGCAGATCTCACAGTTTGCCTTCCA GAAGCCAGCCTATCTCTAGCCCATGGTTTTGGAGTTCCTCTCGGGTTATCTCCCACGCCTGACCTGGAACCAGCA AGCCCCTTTCCTGCCTTCTTACCCCCAACTCTAGGGATGGGACTGTTACAATACTTCAAGATCACTCTTTACACC CAGGGATGCCACAGGAGTGCCCACAGGGTGCAGGACTCCACTGATGAGAGATCCAGCCAAAGAGCTGCCCCCAGG GGTATGAGGGCACCAGCTGGGTTCTCCAGGGAGCAGGAGTTGGACCTCCATGGAGCCACTAGGCCTGGCCTCCTC TACACATCCCCAGGGCTATCTGGTTAATTCCATCAAGCTCAGAGTTAAAAGGCATATCAGCCTGGAGTATTTGGG AGAGACTGGCTGCAGATCCCCGCCAGCCAAGATGCAAGCCACTCGGGACCTGATGTCGGCAGCTGTGCCTCTACT CTGACATTTCACAGGCAGAGAGGTGCCATCAGTTCGCCTCCATTCCTTGCCACCATGACCAGCCTCTCCCTGAAC TCTCTCTTGCTCGGGACCTGCCTGAGGGCTCCCTGCTGCAGTTCGCCGTACTTCCATCTGCTGGGTGCCTCCATC

## 3309/6881 FIGURE 3051B

GTTGGTTGGGTGGGGATGGGGCATTTTCTGAGCTAAGCTTTGTCATTAGTTTGTGAAGCACCTGGTCAGCAACCT GGTAAGGCAGGAGGAAGTGGGTGAGCTCCGAGATGATGAGCACATGAAGCCTGTGGCCCCTTCGTACCTGCAATA TGTCAGGAGCCTCACGCTCACCCAAGATCCTGCAGGGGCCAGGCTCCATCTCACTGGCTCTGAGGGCAGGACAGG GTATCACACATTTCTCACCAGGCCTCCTTTCCTATGGGCATTGGTGCCTCCCAGAGGTTTCTTGGGCTGCTGGCT GGTGAGAGAGACCCTTAAAGAAGATCAAGCCAAGCTGACCTTGGACCCTGTCCAGCACAGCTTCTGGCACAGGA GGCTCTGCTGGCTCAGTGTGGGCTGCAGGAGGACTGCAGACTCAGCTGCAATTCTGAGGGGGGGTTTGGGAGGCTT GTGCGAGGTCTCAGGCCTGTGTGGGGAGCTGGTGCCTCTTCCTGCCCGTATCTTTCTCTTCCAAGGGCAGTGCTC CAAGGCAGGGACTGGAGAAGCCAAGGGGAGAGTCTAAAAGGGCTAGAGCATTTTTAAAAATAGACACAGGGTCTT GGGACTGGGGTTTCGGATTGAGTTGCAAGCAGGGAGAAAACCTGAAGGTCGGTGCCCCTATGGGGCTGACCAGTA GAGAATTTCCTTTACTGTATTTTTGTGTCTGGTCTTCCCTTTCTGGCTTCTAGGACATCCATGCCAGGTGAGGTG CCTGGGTCCCTGTTACAAGTCAGGAGCCCTGTAGGGAGACCCCTCCTTTTGTACAAGTACCTGAATGCTGCGACA GGACTTTTGTAAGAATTTTTGGGTGACTCACTTAGATGTCGTTTCCTTCTTGCCCCCTCTTCCTCTGTAATCT AAGTGCATTAAACATCTTTGCAG

MAELRPSGAPGPTAPPAPGPTAPPAFASLFPPGLHAIYGECRRLYPDQPNPLQVTAIVKYWLGGPDPLDYVSMYR NVGSPSANIPEHWHYISFGLSDLYGDNRVHEFTGTDGPSGFGFELTFRLKRETGESAPPTWPAELMQGLARYVFQ SENTFCSGDHVSWHSPLDNSESRIQHMLLTEDPQMQPVQTPFGVVTFLQIVGVCTEELHSAQQWNGQGILELLRT VPIAGGPWLITDMRRGETIFEIDPHLQERVDKGIETDGSNLSGVSAKCAWDDLSRPPEDDEDSRSICIGTQPRRL SGKDTEQIRETLRRGLEINSKPVLPPINPQRQNGLAHDRAPSRKDSLESDSSTAIIPHELIRTRQLESVHLKFNQ ESGALIPLCLRGRLLHGRHFTYKSITGDMAITFVSTGVEGAFATEEHPYAAHGPWLQILLTEEFVEKMLEDLEDL TSPEEFKLPKEYSWPEKKLKVSILPDVVFDSPLH

AGCAGCGGCGGGGGCCCGAGGGATTCTGAAGGAAGATTTCCATTAGGTAATTTGTTTAATCAGTGCAAGCGAAAT TAAGGGAAAATGGATGTAGAAAATGAGCAGATACTGAATGTAAACCCTGCAGATCCTGATAACTTAAGTGACTCT TCCTCCATTAACGAAGCTAGAATTAATGCCAAGGCAAAAAGGCGACTAAGGAAAAACTCATCCCGGGACTCTGGC AGAGGCGATTCGGTCAGCGACAGTGGGAGTGACGCCCTTAGAAGTGGATTAACTGTGCCAACCAGTCCAAAGGGA GTCTGGGGTACACCTGGACAGGTGTATGATGTGGAGGAGGTGGATGTGAAAGATCCTAACTATGATGATGACCAG GAGAACTGTGTTTATGAAACTGTAGTTTTGCCTTTGGATGAAAGGGCATTTGAGAAGACTTTAACACCAATCATA CAGGAATATTTTGAGCATGGAGATACTAATGAAGTTGCGGAAATGTTAAGAGATTTAAATCTTGGTGAAATGAAA AGTGGAGTACCAGTGTTGGCAGTATCCTTAGCATTGGAGGGGAAGGCTAGTCATAGAGAGATGACATCTAAGCTT CTTTCTGACCTTTGTGGGACAGTAATGAGCACAACTGATGTGGAAAAATCATTTGATAAATTGTTGAAAGATCTA CCTGAATTAGCACTGGATACTCCTAGAGCACCACAGTTGGTGGGCCAGTTTATTGCTAGAGCTGTTGGAGATGGA ATTTTATGTAATACCTATATTGATAGTTACAAAGGAACTGTAGATTGTGTGCAGGCTAGAGCTCTGGATAAG GCTACCGTGCTTCTGAGTATGTCTAAAGGTGGAAAGCGTAAAGATAGTGTGTGGGGCTCTGGAGGTGGGCAGCAA TCTGTCAATCACCTTGTTAAAGAGATTGATATGCTGCTGAAAGAATATTTACTCTCTGGAGACATATCTGAAGCT GAACATTGCCTTAAGGAACTGGAAGTACCTCATTTTCACCATGAGCTTGTATATGAAGCTATTATAATGGTTTTA GAGTCAACTGGAGAAAGTACATTTAAGATGATTTTTGGATTTATTAAAGTCCCTTTGGAAGTCTTCTACCATTACT GTAGACCAAATGAAAAGAGGTTATGAGAGAATTTACAATGAAATTCCGGACATTAATCTGGATGTCCCACATTCA TACTCTGTGCTGGAGCGGTTTGTAGAAGAATGTTTTCAGGCTGGAATAATTTCCAAACAACTCAGAGATCTTTGT CCTTCAAGGGGCAGAAAGCGTTTTGTAAGCGAAGGAGATGGAGGTCGTCTTAAACCAGAGAGCTAC<u>TGA</u>ATATAA TTTTTTTTAAGCACTTGTTTTGGGTACAAGGCATTTCTGACATTTT

## 3312/6881 FIGURE 3054

MDVENEQILNVNPADPDNLSDSLFSGDEENAGTEEIKNEINGNWISASSINEARINAKAKRRLRKNSSRDSGRGD SVSDSGSDALRSGLTVPTSPKGRLLDRRSRSGKGRGLPKKGGAGGKGVWGTPGQVYDVEEVDVKDPNYDDDQENC VYETVVLPLDERAFEKTLTPIIQEYFEHGDTNEVAEMLRDLNLGEMKSGVPVLAVSLALEGKASHREMTSKLLSD LCGTVMSTTDVEKSFDKLLKDLPELALDTPRAPQLVGQFIARAVGDGILCNTYIDSYKGTVDCVQARAALDKATV LLSMSKGGKRKDSVWGSGGGQQSVNHLVKEIDMLLKEYLLSGDISEAEHCLKELEVPHFHHELVYEAIIMVLEST GESTFKMILDLLKSLWKSSTITVDQMKRGYERIYNEIPDINLDVPHSYSVLERFVEECFQAGIISKQLRDLCPSR GRKRFVSEGDGGRLKPESY

## 3313/6881 FIGURE 3055

<u>ATG</u>CCTCCAAAGGTGACTTCAGAGCTGCTTCGGCAGCTGAGACAAGCCATGAGGAACTCTGAGTATGTGACCGAA GCTTTTGTCTCTGGATTCGATGGCTCTGCGGGCACAGCCATCATCACAGAAGAGCATGCAGCCATGTGGACTGAC GGGCGCTACTTTCTCCAGGCTGCCAAGCAAATGGACAGCAACTGGACACTTATGAAGATGGGTCTGAAGGACACA  ${\tt CCAACTCAGGAAGACTGGCTGGTGAGTGTCCTGAAGGATCCAGGGTTGGTGGACCCCTTGATCATTCCT}$ GTTGACAAAATCTGGACAGACCGTCCTGAGCGCCCTTGCAAGCCTCTCCTCACACTGGGCCTGGATTACACAGGC ATCTCCTGGAAGGACAAGGTTGCAGACCTTCGGTTGAAAATGGCTGAGAGGAACGTCATGTGGTTTGTGGTCACT GCCTTGGATGAGATTGCGTGGCTATTTAATCTCCGAGGATCAGATGTGGAGCACAATCCAGTATTTTTCTCCTAC GCAATCATAGGACTAGAGACGATCATGCTCTTCATTGATGGTGACCGCATAGACGCCCCCAGTGTGAAGGAGCAC AAGGCCCTGTGTGCTGACCTCTCCCCAAGGGAGAAGGTGTGGGTCAGTGACAAGGCCAGCTATGCTGTGAGCGAG ACCATCCCCAAGGACCACCGCTGCTGTATGCCTTACACCCCCATCTGCATCGCCAAAGCTGTGAAGAATTCAGCT GAGGTTCCCAAAGGTGGTGTGACAGAGATCTCAGCTGCTGACAAAGCTGAGGAGTTTCGCAGGCAACAGGCAGAC TTTGTGGACCTGAGCTTCCCAACAATTTCCAGTACGGGACCCAACGGCGCCATCATTCACTACGCGCCAGTCCCT GAGACGAATAGGACCTTGTCCCTGGATGAGGTGTACCTTATTGACTCGGGTGCTCAATACAAGGATGGCACCACA GATGTGACGCGGACAATGCATTTTGGGACCCCTACAGCCTACGAGAAGGAATGCTTCACATATGTCCTCAAGGGC  ${\tt CACATAGCTGTGAGTGCAGCCGTTTTCCCGACTGGAACCAAAGGTCACCTTCTTGACTCCTTTGCCCGTTCAGCT}$ TTATGGGATTCAGGCCTAGATTACTTGCACGGGACTGGACATGGTGTTGGGTCTTTTTTGAATGTCCATGAGGGT TACTATGAAGATGGGGCTTTTGGAATTCGCATTGAGAATGTTGTCCTTGTGGTTCCTGTGAAGACCAAGTATAAT TTTAATAACCGGGGAAGCCTGACCTTTGAACCTCTAACATTGGTTCCAATTCAGACCAAAATGATAGATGTGGAT CAGAAACAGGGCCGCCAGGAAGCTCTCGAGTGGCTCATCAGAGAGACGCAACCCATCTCCAAACAGCAT<u>TAA</u>

## 3314/6881 FIGURE 3056

MPPKVTSELLRQLRQAMRNSEYVTEPIQAYIIPSGDAHQSEYIAPCDCRRAFVSGFDGSAGTAIITEEHAAMWTD GRYFLQAAKQMDSNWTLMKMGLKDTPTQEDWLVSVLPEGSRVGVDPLIIPTDYWKKMAKVLRSAGHHLIPVKENL VDKIWTDRPERPCKPLLTLGLDYTGISWKDKVADLRLKMAERNVMWFVVTALDEIAWLFNLRGSDVEHNPVFFSY AIIGLETIMLFIDGDRIDAPSVKEHLLLDLGLEAEYRIQVHPYKSILSELKALCADLSPREKVWVSDKASYAVSE TIPKDHRCCMPYTPICIAKAVKNSAESEGMRPAHIKDAVALCELFNWLEKEVPKGGVTEISAADKAEEFRRQQAD FVDLSFPTISSTGPNGAIIHYAPVPETNRTLSLDEVYLIDSGAQYKDGTTDVTRTMHFGTPTAYEKECFTYVLKG HIAVSAAVFPTGTKGHLLDSFARSALWDSGLDYLHGTGHGVGSFLNVHEGPCGISYKTFSDEPLEAGMIVTDEPG YYEDGAFGIRIENVVLVVPVKTKYNFNNRGSLTFEPLTLVPIQTKMIDVDSLTDKECDWLNNYHLTCRDVIGKEL QKQGRQEALEWLIRETQPISKQH

## 3315/6881 FIGURE 3057

## 3316/6881 FIGURE 3058A

TTCTAGAAGAAAACATCAGGAGAAGAAAGAGAGGGGGGATTTATTCAAAGTTGTTTCCAATTCCTTCAAAACCT CACTGAAACAGTAACCACAAGACTTACATCCTTACCACCAAAAGGCGGGACCAGCAATGGCTATGCTAAAACAGC CTCTCTTGGTGGAGGGGCCGGCTGGAGAAACAAAGCCTGACTCATGGCAGCAGCGGCTACATAAACTCAACTGG AGGCTCAACCTTTGAAAGGAAAACTCACGTTACCCGCCATGCGTATGAAGGGAGCTCCAGTGGCAACTCTTCTCC GGAGTACCCTCGGAAGGAATTTGCATCTTCTTCAACCAGAGGACGGAGTCAAACACGAGAGAGTGAAATTCGAGT  ${\tt TCGACTGCAGAGTGCGTCCCCATCCACCCGATGGACAGAATTGGATGATGTTAAGCGTTTGCTCAAGGGGAGTCG}$ ATCGGCAAGTGTGAGCCCCACCCGGAATTCCTCCAACACTCCCCATCCCCAAGAAAGGCACTGTGGAGACCAA TGTGTGGTCCTCCACCCTGCCCGCGGGTCCTCCATGGGGACCTATCACAACAACATGACAACCAGAGCTCATC CCTCCTCAACACCCAATGCCTACTCTGCGGGATCAGTCTTCGGAGTTCCAAACAACATGGCGTCCTGCTCACCCAC TTTGCACCCTGGACTCAGCACATCCTCCTCAGTGTTTGGCATGCAGAACAATCTGGCCCCCAGCTTGACCACCCT GTCCCATGGCACCACCACCACTTCCACAGCATATGGGGTGAAGAAAAACATGCCCCAGAGTCCTGCGGCTGTGAA CACTGGCGTTTCCACCTCCGCCGCCTGCACCACAAGTGTGCAGAGCGATGACCTTTTGCACAAGGACTGCAAGTT CCTGATCCTAGAGAAAGACAACACCTGCCAAGAAGGAGATGGAGCTGCTCATCATGACCAAGGACAGCGGGAA TGCCTACAATGCTGACTCAGGCCTAAAAGCCGAAGCTAATGGAGACCTGAAGACTGTGTCCACAAAGGGCAAGAC CACCACTGCAGATATCCACAGCTACGGCAGCAGTGGTGGTGGTGGCAGTGGAGGAGGTGGCGGTGTTGGTGGCGC TGGCGGCCGCCCTTGGGGACCAGCCCAGCCTGGTGCCCCTGCGGCTCCTGCTGCAGCTGGTGGAAGTGGCTGCT GGGCCTGCTGCTCACCTGGCTGCTACTCCTGGGGCTGCTCTTCGGCCTCATTGCTCTGGCGGAGGAGGTGAGGAA GCTGAAGGCGCGTGTGGATGAGCTGGAGAGGATCAGGAGGAGCATACTGCCCTATGGGGACAGCATGGATAGAAT AGAAAAGGACCGCCTCCAGGGCATGGCACCCGCGGCGGGAGCAGACCTGGACAAAATTGGGCTGCACAGTGACAG CCAGGAGGAGCTCTGGATGTTCGTGAGGAAGAAGCTAATGATGGAACAGGAAAATGGAAATCTCCGAGGAAGCCC TGGCCCTAAAGGTGACATGGGAAGTCCAGGCCCTAAAGGAGATCGAGGGTTCCCTGGGACTCCAGGTATCCCTGG GCCCTTGGGCCACCAGGTCCACAAGGACCAAAGGGTCAAAAAGGCAGCGTGGGAGATCCTGGCATGGAAGGCCC CATGGCCCAGAGAGGGCCGAAGGCCCCATGGGACCTCGTGGTGAGGCAGGGCCTCCTGGATCTGGAGAGAAAGG GGAAAGAGGGGCTGCTGGTGAACCAGGTCCTCATGGCCCACCTGGTGTCCCAGGTTCTGTGGGTCCCAAAGGTTC CAGCGGCTCTCCTGGCCCACAGGGCCCTCCAGGTCCTGTAGGTCTCCAAGGGCTCCGAGGTGAAGTAGGACTTCC TGGTGTCAAAGGTGACAAAGGACCAATGGGACCACCAGGACCCAAAGGTGACCAGGGTGAGAAAGGACCTCGAGG CCTCACAGGCGAGCCTGGCATGAGAGGTTTGCCTGGTGCTGTTGGTGAGCCCGGGGCTAAAGGAGCAATGGGTCC TGCTGGCCCAGACGGACACCAAGGCCCAAGAGGTGAACAAGGTCTTACTGGGATGCCTGGAATCCGTGGCCCACC AGGACCTTCTGGAGACCCAGGAAAGCCAGGTCTCACAGGACCCCAGGGACCTCAGGGACTTCCCGGTACCCCTGG CCGACCAGGAATAAAAGGTGAACCAGGAGCTCCAGGCAAGATCGTGACTTCGGAGGGGTCATCGATGCTCACTGT CCCAGGCCCCCAGGACCTCCTGGAGCCATGGGACCCCCAGGACCTCCAGGTGCCCCAGGCCCTGCCGGCCCAGC TGGTCTCCCAGGACATCAAGAAGTTCTTAATTTACAAGGTCCCCCAGGCCCACCCGGCCCACGCGGGCCACCAGG GCCTTCCATTCCAGGCCCACCAGGACCCCGAGGCCCACCAGGGGGAGGGTTTGCCAGGCCCACCAGGCCCACCAGG ATCGTTCCTGTCCAACTCAGAAACCTTCCTCTCCGGCCCCCAGGCCCACCTGGCCCCCAGGTCCCAAGGGAGA CCAAGGTCCCCCAGGCCCCAGAGGACACCAAGGCGAGCAAGGCCTCCCAGGTTTCTCAACCTCAGGGTCCAGTTC TTTCGGACTCAACCTTCAGGGACCACCAGGCCCACCTGGCCCCCAGGGACCCAAAGGTGACAAAGGTGATCCAGG TGTTCCAGGGGCTCTTGGCATTCCTAGTGGTCCTTCTGAAGGGGGGATCATCAAGTACCATGTACGTGTCAGGCCC GCCAGGGCCCCCTGGGCCTCCGGGCTCTATCAGCAGCTCTGGCCAGGAGATTCAGCAGTACATCTC TGAGTACATGCAGAGTGACAGTATTAGATCTTACCTATCCGGAGTTCAGGGTCCCCCAGGCCCACCTGGTCCCCC AGGACCTGTCACCACCATCACAGGCGAGACTTTCGACTACTCAGAGCTGGCAAGCCACGTTGTGAGCTACTTACG GACTTCGGGGTACGGTGTCAGCTTGTTCTCGTCCTCCATCTCTTCTGAAGACATTCTGGCTGTGCTGCAGCGGGA TGACGTGCGTCAGTACCTACGTCAGTACTTGATGGGCCCTCGGGGTCCGCCAGGGCCACCAGGAGCCAGTGGAGA TGGGTCCCTCCTGTCTTTGGACTATGCAGAGCTGAGTAGTCGCATTCTCAGCTACATGTCGAGTTCTGGGATCAG

## 3317/6881 FIGURE 3058B

CATTGGGCTTCCTGGTCCCCCGGGGCCCCCTGGCTTGCCGGGAACCTCCTATGAGGAGCTCCTCTCCTTGCTGCG AGGGTCTGAATTCAGAGGCATCGTTGGACCCCCAGGTCCCCGGGTCCACCAGGGATCCCAGGCAATGTGTGGTC TCCTGGTCCCCCAGGGCCTCGAGGGCCCCCGGGTGTCTCAGGAGCCCTGGCAACCTATGCAGCTGAAAACAGCGA CAGCTTCCGGAGCGAGCTGATCAGCTACCTCACAAGTCCTGATGTGCGCAGCTTCATTGTTGGCCCCCCAGGCCC TCCTGGGCCGCAGGGACCCCCTGGGGACAGCCGCCTCCTGTCCACGGATGCCTCCCACAGTCGGGGTAGCAGCTC CTCCTCACACAGCTCATCTGTCAGGCGGGGCAGCTCCTACAGCTCTTCCATGAGCACAGGAGGAGGTGGTGCAGG CTCCCTGGGTGCAGGCGGTGCCTTTGGTGAAGCTGCAGGAGACAGGGGTCCCTATGGCACTGACATCGGCCCAGG CGGAGGCTATGGGGCAGCAGAAGGCGGCATGTATGCTGGCAATGGCGGACTATTGGGAGCTGACTTTGCTGG AGATCTGGATTACAATGAGCTGGCTGTGAGGGTGTCAGAGAGCATGCAGCGTCAGGGCCTACTGCAAGGGATGGC CTACACTGTCCAGGGCCACCAGGCCAGCCTGGGCCACAGGGGCCACCCGGCATCAGCAAGGTCTTCTCTGCCTA CAGCAACGTGACTGCGGACCTCATGGACTTCTTCCAAACTTATGGAGCCATTCAAGGACCCCCTGGGCAAAAAGG AGAGATGGGCACTCCAGGACCCAAAGGTGACAGGGGCCCTGCTGGGCCACCAGGTCATCCTGGGCCACCTGGCCC TCGAGGACACAAGGGAGAAAAAGGAGACAAAGGTGACCAAGTCTATGCTGGGCGGAGAAGGAGAAGAAGTATTGC TGTCAAGCCGTGAGCTAGCCATGGCAGGACAGCTCCTGGACCAGGTCTCATAATGCATGTGGCACTTAGGTCCAA GTTTTAGTCTGAACAATATATACTTATAGAATTCAGTCAAAGATACACAATCTGAAACAGCTTCATGGGGTGGAC CTTAGTTCAAGCCCCAGCCTAGGAAAGCCAGTTACATAAAAGTTGGCTCAGGAGTCTTAGAGCTTTACCTAAATA TGAGCCCAGAAAACGGAGGATGGGGGTGGGGCGCCTTCCTGGAGGTGACACTTGATGGGGGTGTTCTGGTTAC TGTTCTAAGGCTGTGCCATCAGCTCCTCCCCCTGTTCATTCTGCATTCTCTAGTCAGTTGGCTAAGAAGTGA CTCTTGCAACTAAAAAAATTAAGAAATTCACTTCCCCTCTAGGAGGTGATGATAGGGTTTCTAATGGTTATATGT ATATCACATTCCCATTTGCTTAGAAAGTCTGATTGTAGCTATGATTGTCCGTAGGCCCATACTAGAGTTCATGGA GAAGAGGGAAAACAGAAAACCTGATGCTGGGGACACAGCATCAGCTCAAGACGTCACCCTCCATTCTGCACTCAG 

## 3318/6881 FIGURE 3059A

AGGGGCCAGCAAAAACAAAAAGTTGAAAATCGAAAAGAGAGAAAGCAGCAAGTCCGCAAGAGAAAGTTTGAAA TGATTAGTCTCCCCAATGGCCTCCAGGGCTTTGTGCAAGTCACTGAAATCTGTGATGCCTACACCAAAAAGCTGA ATGAGCAGGTGACACAAGAACAACCTCTGAAGGACCTACTTCACTTGCCTGAACTTTTCTCACCTGGAATGCTGG TAAGATGTGTGGGGAGCAGTCTGGGCATCACAGACAGGGGGCAAGAAGAGTGTCAAGCTGTCTCTGAACCCCAAAA ATGTCAACAGAGTGCTGAGTGCTGAGGCCCTGAAGCCTGGCATGCTACTTACAGGTACCGTATCCAGCCTGGAAG ACCATGGCTACCTAGTGGACATTGGTGTTGATGGGACCAGAGCTTTTCTGCCACTGCTGAAAGCCCAGGAGTACA TCAGACAGAAGAACAAAGGTGCTAAACTAAAGGTGGGTCAGTACCTGAACTGCATTGTTGAAAAAGGTGAAAGGCA  ${\tt ACGGAGGAGTTGTTAGTCTGTTGGTCACTCAGAGGTTTCTACGGCCATTGCTACTGAACAGCAGAGCTGGA}$ ACCTTAATAACTTGCTACCAGGACTGGTGGTCAAAGCTCAGGTACAGAAGGTGACTCCATTTGGCCTTACGCTAA ACTTCCTCACATTCTTCACGGGCGTGGTTGACTTTATGCACCTGGATCCCAAGAAAGCTGGAACATATTTCTCAA ATCAGGCAGTGAGGGCCTGCATCCTTTGCGTCCATCCTCGAACCAGAGTTGTGCACCTGAGCCTGCGCCCCATCT TCCTACAGCCTGGACGCCCACTCACCCGACTCTCTTGCCAGAACCTTGGAGCAGTGCTGGATGATGTTCCTGTCC AGGGTTTTTTCAAAAAGGCTGGGGCCACCTTTAGGCTGAAGGATGGGGTTCTGGCCTATGCCCGGCTCAGCCATC TCTCTGATTCTAAGAACGTCTTCAATCCTGAGGCCTTCAAGCCAGGGAACACTCACAAGTGTAGAATTATTGACT ACAGCCAAATGGATGAACTGGCCTTGCTCTCTACGAACGTCTATTATTGAAGCTCAGTACCTTAGATATCATG ACATCGAACCTGGGGCAGTGGTAAAGGGCACAGTGCTAACCATAAAGTCATATGGGATGCTGGTGAAGGTGGGCG AGCAGATGAGGGGCCTGGTACCTCCCATGCACCTGGCTGACATCCTGATGAAGAATCCGGAGAAGAAGTACCACA TCGGGGATGAGGTCAAGTGCCGGGTTTTGCTTTGTGACCCTGAAGCCAAGAAGCTGATGATGACCCTGAAAAAAA CCCTGATTGAGTCCAAACTACCTGTCATTACCTGCTATGCCGATGCCAAGCCTGGTCTGCAGACACATGGCTTCA TCATCAGGGTCAAGGACTATGGCTGCATTGTGAAGTTCTACAACAATGTGCAGGGACTGGTGCCCAAGCATGAGC TCAGTACTGAGTATATCCCTGACCCGGAGAGAGTTTTTTACACTGGCCAGGTGGTGAAGGTTGTCGTATTGAACT GACACAGTCAGAAGAAAAGGAAAAGCCATTAACATTGGGCAGTTGGTAGATGTGAAGGTTTTAGAGAAGACCAAAG ATGGGCTGGAGGTGGCTGTCCTGCCCCACAACATCCGTGCTTTCCTCCCCACATCTCATCTGTCGGACCACGTTG CCAACGGCCCATTGTTACATCATTGGCTCCAGGCAGGTGACATCCTTCACCGAGTCCTGTGTCTGAGCCAGAGCG AGGGGCGTGTTCTTTGCAGGAAGCCAGCCTTGGTCTCCACAGTAGAAGGTGGCCAGGATCCCAAGAACTTCT CAGAAATCCATCCTGGAATGCTGCTCATTGGTTTTGTGAAGAGCATCAAGGACTATGGCGTGTTCATCCAGTTCC CCTCAGGTCTTAGCGGACTGGCCCCAAAAGCTATCATGAGTGACAAATTTGTGACCTCCACAAGTGACCACTTTG TTGAGGGCCAGACAGTAGCGGCAAAGGTGACCAATGTGGATGAGGAGAAGCAGCGGATGCTGCTGTCACTGCGGC TGTCGGACTGTGGTCTGGGGGACTTGGCTATCACCAGCCTCCTCCTCCTGAATCAGTGCCTGGAGGAGCTGCAGG GCGTGCGCAGCCTTATGAGCAACCGAGACTCTGTGTTGATCCAGACGCTGGCCGAGATGACCCCAGGAATGTTCC TTGACCTAGTGGTGCAGGAGGTGTTGGAAGATGGCTCTGTGGTATTCAGTGGGGGTCCAGTGCCCGACCTGGTCC TGAAAGCCAGCAGATACCATCGCGCAGGGCAGGAGGTGGAATCTGGGCAGAAAAAGAAGGTTGTTATCTTAAATG TTGATCTTTTGAAGTTGGAAGTGCACGTTTCCCTTCACCAGGACTTGGTGAATAGAAAAGCTAGAAAGCTGAGGA AAGGCAGCGAACACCAGGCGATTGTGCAGCACTTGGAGAAGTCCTTTGCCATTGCCTCCTTGGTAGAGACGGGCC ACCTGGCAGCTTTCTCCCTGACCTCCACCTCAACGACACCTTCCGCTTTGACTCAGAGAAATTGCAGGTGGGAC AGGGTGTCTCCCTAACCCTCAAGACCACAGAACCAGGAGTGACTGGCCTTCTTTTGGCTGTGGAGGGGCCGGCTG CCAAGAGGACCATGAGGCCGACCCAGAAGGACTCTGAGACAGTTGATGAGGATGAAGAAGTGGATCCAGCTCTGA CTGTAGGGACCATAAAGAAGCACACCCTCTCCATCGGGGACATGGTCACAGGGACTGTCAAGTCCATTAAGCCTA CCCATGTGGTTGTGACTCTGGAAGATGGCATTATTGGCTGTATCCATGCCTCCCACATTCTAGATGATGTTCCAG AGCTGGAGGATGGCCACACTGCTCTTAACACTCACTCTGTTAGCCCCATGGAGAAGATTAAACAGTACCAGGCCG GCCAGACTGTTACTTGCTTCTTAAAGAAATACAATGTGGTGAAGAAATGGCTTGAGGTGGAGATTGCCCCAGACA

## 3319/6881 FIGURE 3059B

TCCGGGGGAGAATTCCCTTATTGCTCACTTCTCTGAGCTTCAAGGTTCTGAAGCATCCAGATAAGAAGTTCCGGG  $\tt CTCACAAGCTTGAGGAAGGGGAAGTGGCCATGGGCCGAGTGGTGAAGGTGACTCCCAACGAGGGGCTGACCGTCT$ CCTTCCCCTTTGGGAAGATAGGAACAGTCAGTATATTTCACATGAGTGACTCCTACTCCGAGACGCCCCTGGAAG ACTTCGTCCCCCAGAAGGTTTTCAGATGTTACATCCTGTCCACTGCAGACAACGTATTGACTTTGTCGCTGCGAT GGCAGCTTCTGAGGGGCTATGTAGGGTCCATCCAGCCACACGGTGTGTTCTTTCGCCTTGGCCCCTCCGTTGTGG GGAAGCTGCTCACAGCCAGGGTCCTACGCCTTAACCACCAGAAGAACCTGGTAGAGCTGTCTTTCCTCCCCGGAG ACACTGGGAAGCCAGACGTGCTTCTGCTTCCTTGGAAGGGCAACTTACAAAGCAAGAGGAGAGAAAACAGAGG CTGAGGAGAGACCAAAAAGGGGAAAAGAAAAATCAGAAAAGGAACGAGAAGAACCAGAAGGGGCAGGAGG GGGAGTCTGGGAGTGAGCAGGAAAGAGTGAGCAAGAAGCCAAAGAAGCCGGCCTGTCAGAGGAGGACGACAGCC TTGTGGACGTGTACTATCGGGAGGGAAAAGAGGGCAGAAGAGACGAATGTGCTGCCCAAGGAGAAGCAAACCA AGCCAGCAGAAGCGCCCCGGCTGCAGCTGTCTTCAGGCTTCGCTTGGAATGTGGGACTAGACTCTCTGACCCCGG CCTTGCCACCTCTAGCAGAGAGCTCAGACAGCGAGGAGGATGAGAAGCCACCAAGCCACGATAAAGAAAAGCA AGAAAGAAAGGAGTTGGAGAAGCAGAAGGCAGAGAAGGAACTGTCCCGCATTGAGGAGGCGCTGATGGATCCTG GGCGGCAGCCAGAGTCCGCGGATGATTTTGACCGACTGGTGCTGAGCTCCCCCAACAGCTCCATTCTGTGGCTGC AGTACATGGCTTTCCACCTGCAGGCCACGGAGATCGAGAAGGCCCGTGCCGTGGCTGAGAGGGCCCTTAAGACCA AGGAGTCCCTGACCAAGGTCTTTGAGCGAGCCGTGCAGTACAACGAGCCTCTCAAAGTCTTTCTCCACCTGGCTG ACATCTACGCCAAGTCAGAGAAATTCCAGGAAGCTGGTGAACTCTACAACCGGATGCTGAAGCGTTTCCGGCAGG AGAAAGCTGTGTGGATCAAATACGGCGCCTTCCTTCTGCGGAGGAGCCAGGCTGCAGCCAGTCACCGCGTGCTGC AGCGAGCCCTGGAGTGCCTGCCTAGCAAGGACATGTGGATGTCATTGCCAAGTTTGCCCAGCTTGAGTTTCAGC TGGGGGATGCAGAGCGGCCAAAGCCATTTTTGAGAACACGCTGAGCACCTACCCAAAGCGCACAGATGTCTGGT TGAGCTTGGCCCCCAAGAGAATGAAGTTCTTCTTCAAGCGCTACCTGGACTACGAGAAGCAGCATGGCACTGAGA AGGATGTGCAGGCCAGGCCCAAGGCCCTGGAGTATGTGGAGGCCCAAGAGCTCAGTGCTAGAGGACTAGTGGC AGGCTGGCTCTGTGGGACACTGTCAACAATGGGCCAGCCCGGCCCCGCCTCGAGTGCCTGGGCACTCGGAAAACT GTTACCTCAGGACTCTATTTAAATGCTGCTTTTTCTGCAGCACGCTTGGGGGAAATCCTGTCAGGATGAAAAGGAA GTTGAGATTTTTTAAATCCCTCTTCGCTTGCTTTATTTTCAGTACCAACTTGTTATCTTTTTCCTTATCTGAGGC TACCTGGGGATTGTGGGCAGCAGGCCCCTGGACTCCCAGAAATGCTGAGGGTCCCTCTTCCAGGGGAGTTCCCTG GGGAGCAAGAGTAGAGGGGCTATTCCCGAGGGTCCTGTGGTCAGGGTCCTGCTTTGTCCCTGGCAGGCTGTCAGT CCAGCTGGAGGGGGTCAGTAGGCTCCAGGGAGTGGGCCCTCCCCTCCGATCTTGGAGTCTCTGGGTGTTCCTTCA GCCTCAGCCTCACTGGTACCTTCTGCCCTTTAGGGGAGGCTATGAGTCTGGGACAGGAGGACAAATTCAGAGCCC AGAGGGGGAAATGGAGAAACCTGGGCTGCTGAGGAAAGCCACGGGTGTTGGCGTGAACTGATGATGTCTCATCCC ACGCCCACTATGGCCACATTACCTAACCTCTCCATATCTGGGCTATTCAAGGTCTTGGAGGCCAGCACAGACCCA GCTAGTTGTTGAAGCCAGTTCTTTTTTGTCTTGGTCATGAGGGAATTAAACGTTTTCTCTGGCAG

MANLEESFPRGGTRK1HKPEKAFQQSVEQDNLFD1STEEGSTKRKKSQKGPAKTKKLK1EKRESSKSAREKFE1L SVESLCEGMRILGCVKEVNELELVISLPNGLQGFVQVTEICDAYTKKLNEQVTQEQPLKDLLHLPELFSPGMLVR CVVSSLGITDRGKKSVKLSLNPKNVNRVLSAEALKPGMLLTGTVSSLEDHGYLVDIGVDGTRAFLPLLKAQEYIR QKNKGAKLKVGQYLNCIVEKVKGNGGVVSLSVGHSEVSTAIATEQOSWNLNNLLPGLVVKAQVQKVTPFGLTLNF LTFFTGVVDFMHLDPKKAGTYFSNQAVRACILCVHPRTRVVHLSLRPIFLQPGRPLTRLSCQNLGAVLDDVPVQG FFKKAGATFRLKDGVLAYARLSHLSDSKNVFNPEAFKPGNTHKCRIIDYSQMDELALLSLRTSIIEAQYLRYHDI EPGAVVKGTVLTIKSYGMLVKVGEQMRGLVPPMHLADILMKNPEKKYHIGDEVKCRVLLCDPEAKKLMMTLKKTL IESKLPVITCYADAKPGLQTHGF11RVKDYGCIVKFYNNVQGLVPKHELSTEY1PDPERVFYTGQVVKVVVLNCE PSKERMLLSFKLSSDPEPKKEPAGHSQKKGKAINIGQLVDVKVLEKTKDGLEVAVLPHNIRAFLPTSHLSDHVAN GPLLHHWLQAGDILHRVLCLSQSEGRVLLCRKPALVSTVEGGQDPKNFSEIHPGMLLIGFVKSIKDYGVFIQFPS GLSGLAPKAIMSDKFVTSTSDHFVEGQTVAAKVTNVDEEKQRMLLSLRLSDCGLGDLAITSLLLLNQCLEELQGV RSLMSNRDSVLIQTLAEMTPGMFLDLVVQEVLEDGSVVFSGGPVPDLVLKASRYHRAGQEVESGQKKKVVILNVD LLKLEVHVSLHQDLVNRKARKLRKGSEHQAIVQHLEKSFAIASLVETGHLAAFSLTSHLNDTFRFDSEKLQVGQG VSLTLKTTEPGVTGLLLAVEGPAAKRTMRPTQKDSETVDEDEEVDPALTVGTIKKHTLSIGDMVTGTVKSIKPTH VVVTLEDGIIGCIHASHILDDVPEGTSPTTKLKVGKTVTARVIGGRDMKTFKYLPISHPRFVRTIPELSVRPSEL EDGHTALNTHSVSPMEKIKQYQAGQTVTCFLKKYNVVKKWLEVEIAPDIRGRIPLLLTSLSFKVLKHPDKKFRVG QALRATVVGPDSSKTLLCLSLTGPHKLEEGEVAMGRVVKVTPNEGLTVSFFFGKIGTVSIFHMSDSYSETPLEDF VPQKVFRCYILSTADNVLTLSLRSSRTNPETKSKVEDPEINSIQDIKEGQLLRGYVGSIQPHGVFFRLGPSVVGL ARYSHVSQHSPSKKALYNKHLPEGKLLTARVLRLNHQKNLVELSFLPGDTGKPDVLSASLEGQLTKQEERKTEAE ERDQKGEKKNQKRNEKKNQKGQEEVEMPSKEKQQPQKPQAQKRGGRECRESGSEQERVSKKPKKAGLSEEDDSLV DVYYREGKEEAEETNVLPKEKQTKPAEAPRLQLSSGFAWNVGLDSLTPALPPLAESSDSEEDEKPHQATIKKSKK ERELEKQKAEKELSRIEEALMDPGRQPESADDFDRLVLSSPNSSILWLQYMAFHLQATEIEKARAVAERALKTIS FREEQEKLNVWVALLNLENMYGSQESLTKVFERAVQYNEPLKVFLHLADIYAKSEKFQEAGELYNRMLKRFRQEK AVWIKYGAFLLRRSQAAASHRVLQRALECLPSKEHVDVIAKFAQLEFQLGDAERAKAIFENTLSTYPKRTDVWSV YIDMTIKHGSQKDVRDIFERVIHLSLAPKRMKFFFKRYLDYEKQHGTEKDVQAVKAKALEYVEAKSSVLED

 ${\tt MAGPESDAQYQFTGIKKYFNSYTLTGRMNCVLATYGSIALIVLYFKLRSKKTPAVKAT}$ 

MAVARAGVLGVQWLQRASRNVMPLGARTASHMTKDMFPGPYPRTPEERAAAAKKYNMRVEDYEPYPDDGMGYGDY PKLPDRSQHERDPWYSWDQPGLRLNWGEPMHWHLDMYNRNRVDTSPTPVSWHVMCMQLFGFLAFMIFMCWVGDVY PVYQPVGPKQYPYNNLYLERGGDPSKEPERVVHYEI

ACGGTCACCCGTTGCCAGCTCTAGCCTTTAAATTCCCGGCTCGGGGACCTCCACGCACCGCGGCTAGCGCCGACA ACCAGCTAGCGTGCAAGGCGCCGCGCCTCAGCGCGTACCGGCGGCTTCGAAACCGĆAGTCCTCCGGCGACCCCG AACTCCGCTCCGGAGCCTCAGCCCCCTGGAAAGTGATCCCGGCATCCGAGAGCCAAGATGCCGGCCCACTTGCTG GGAGATAAGTTGGAGACGATGCCCCTCTACTTGGAAGACGACATTCGCCCTGATATAAAAGATGATATATGAC  $\verb|CCCACCTACAAGGATAAGGAAGGCCCCAAGGTTGAATATGTCTGGAGAAACATCATCCTTATGTCTCTG|\\$ CTACACTTGGGAGCCCTGTATGGGATCACTTTGATTCCTACCTGCAAGTTCTACACCTGGCTTTGGGGGGGTATTC TACTATTTTGTCAGTGCCCTGGGCATAACAGCAGGAGCTCATCGTCTGTGGAGCCACCGCTCTTACAAAGCTCGG CTGCCCCTACGGCTCTTTCTGATCATTGCCAACACAATGGCATTCCAGAATGATGTCTATGAATGGCCTCGTGAC CACCGTGCCCACCACAGTTTTCAGAAACACATGCTGATCCTCATAATTCCCGACGTGGCTTTTTCTTCTCTCAC GTGGGTTGGCTGTGTGCGCAAACACCCAGCTGTCAAAGAGAGGGGGAGTACGCTAGACTTGTCTGACCTAGAA GCTGAGAAACTGGTGATGTTCCAGAGGAGGTACTACAAACCTGGCTTGCTGATGATGTGCTTCATCCTGCCCACG CTTGTGCCCTGGTATTTCTGGGGTGAAACTTTTCAAAACAGTGTGTTCGTTGCCACTTTCTTGCGATATGCTGTG GTGCTTAATGCCACCTGGCTGGAACAGTGCTGCCCACCTCTTCGGATATCGTCCTTATGACAAGAACATTAGC CCCCGGGAGAATATCCTGGTTTCACTTGGAGCTGTGGGTGAGGGCTTCCACAACTACCACCACTCCTTTCCCTAT CTGGCCTATGACCGGAAGAAAGTCTCCAAGGCCGCCATCTTGGCCAGGATTAAAAGAACCGGAGATGGAAACTAC TTAACTACTGAATAATGCTACCAGGATGCTAAAGATGATGTTAACCCCATTCCAGTACAGTATTCTTTTAAAA TTCAAAAGTATTGAAAGCC

TCTCTTGATTCCTAGTCTCTCGATATGCCACCTCCGTCAGTCTTTGCCGAGGTTCCGCAGGCCCAGCCTGTCCTG GTCTTCAAGCTCACTGCCGACTTCAGGGAGGATCCGGACCCCCGCAAGGTCAACCTGGGAGTGGGAGCATATCGC ACGGATGACTGCCATCCCTGGGTTTTGCCAGTAGTGAAGAAGTGGAGCAGAAGATTGCTAATGACAATAGCCTA AATCACGAGTATCTGCCAATCCTGGGCCTGGCTGAGTTCCGGAGCTGTGCTTCTCGTCTTGCCCTTGGGGATGAC AGCCCAGCACTCAAGGAGAAGCGGGTAGGAGGTGTGCAATCTTTGGGGGGGAACAGGTGCACTTCGAATTGGAGCT GATTTCTTAGCGCGTTGGTACAATGGAACAAACAACAACACCCTGTCTATGTGTCCTCACCAACCTGGGAG AATCACAATGCTGTGTTTTCCGCTGCTGGTTTTAAAGACATTCGGTCCTATCGCTACTGGGATGCAGAGAAGAGA GGATTGGACCTCCAGGGCTTCCTGAATGATCTGGAGAATGCTCCTGAGTTCTCCATTGTTGTCCTCCACGCCTGT GCACACAACCCAACTGGGATTGACCCAACTCCGGAGCAGTGGAAGCAGATTGCTTCTGTCATGAAGCACCGGTTT TATTTTGTGTCTGAAGGCTTCGAGTTCTTCTGTGCCCAGTCCTTCTCCAAGAACTTCGGGCTCTACAATGAGAGA GTCGGGAATCTGACTGTGGTTGGAAAAGAACCTGAGAGCATCCTGCAAGTCCTTTCCCAGATGGAGAAGATCGTG CGGATTACTTGGTCCAATCCCCCCGCCCAGGGAGCACGAATTGTGGCCAGCACCCTCTCTAACCCTGAGCTCTTT GAGGAATGGACAGGTAATGTGAAGACAATGGCTGACCGGATTCTGACCATGAGATCTGAACTCAGGGCACGACTA GAAGCCCTCAAAACCCCTGGGACCTGGAACCACATCACTGATCAAATTGGCATGTTCAGCTTCACTGGGTTGAAC CCCAAGCAGGTTGAGTATCTGGTCAATGAAAAGCACATCTACCTGCTGCCAAGTGGTCGAATCAACGTGAGTGGC GGATTAGAGACACTTGCAGGACTGAAAGCTGCTCTGGTGAGGCAGCCTCTGTTTAAACCGGCCCCACATGAAGAG GAATAAAAGAGTACTTTGATCATGAGACATAGGTATCTTGTCCCTCTCACTAAAAAGGAGTGTTGTGTGGGCGG CCACGTGCTTCTATGTGGTGTTTGACTCTGTACAAATTCTAGTCCCAAAGATCAAGTTGTCTGAAGGAGCCAAAG TGTGAATGTGGGTGTCGGCTGCGGCATTAAATTCATCATCTCAACCCAGAGTGTCTGGTCTCCCTGCTCTTTCTG  ${\tt CATGGTTGTGTCCTAAGCTTTGGTTCTTTAGGGTGACTGTGGTAAGAAGGATATTTAATCATGACATG}$ CACGGACACGTACATATTTAACTGAAACAAGTTTTACCAAACAGTATTTACTCGTGATGTGCGTAGTGCATTCTG ATATTTTTGAGCCATTCTATTGTGTTCTACTTCACCTAAAAAAATAAAATAAAAATGTTGATCAAG

MAPPSVFAEVPQAQPVLVFKLTADFREDPDPRKVNLGVGAYRTDDCHPWVLPVVKKVEQKIANDNSLNHEYLPIL GLAEFRSCASRLALGDDSPALKEKRVGGVQSLGGTGALRIGADFLARWYNGTNNKNTPVYVSSPTWENHNAVFSA AGFKDIRSYRYWDAEKRGLDLQGFLNDLENAPEFSIVVLHACAHNPTGIDPTPEQWKQIASVMKHRFLFPFFDSA YQGFASGNLERDAWAIRYFVSEGFEFFCAQSFSKNFGLYNERVGNLTVVGKEPESILQVLSQMEKIVRITWSNPP AQGARIVASTLSNPELFEEWTGNVKTMADRILTMRSELRARLEALKTPGTWNHITDQIGMFSFTGLNPKQVEYLV NEKHIYLLPSGRINVSGLTTKNLDYVATSIHEAVTKIQ

#### 3328/6881 FIGURE 3068A

CGCCGCGGCCCCCGCCCCGGACTGTCCGCGCTCCATCTGGTATCTTGGCCTCAGCTGTCCTTGAAGTCAC CATGCCGAGGTCCCCACCACCCCTCTTTCTGTTCCTGCTGCTGCTAGGCCAGCCCCCTCCCAGCAGGCCACA GTCACTGGGCACCACTAAGCTCCGGCTGGTGGGCCCAGAGAGCAAGCCAGAGGAGGGCCGCCTGGAGGTGCTGCA CCAGGGCCAGTGGGGCACCGTGTGTGATGACAACTTTGCTATCCAGGAGGCCACAGTGGCTTGCCGCCAGCTGGG GCAGTGTGTGGGCACAGAGAGCTCCTTGGACCAGTGCGGGTCTAATGGCTGGGGAGTCAGTGACTGCAGTCACTC AGAAGACGTAGGGGTGATATGCCACCCCGGCGCCATCGTGGCTACCTTTCTGAAACTGTCTCCAATGCCCTTGG GCCCCAGGGCCGGCTGGAGGAGGTGCGGCTCAAGCCCATCCTTGCCAGTGCCAAGCAGCATAGCCCAGTGAC CGAGGGAGCCGTGGAGGTGAAGTATGAGGGCCACTGGCGGCAGGTGTGTGACCAGGGCTGGACCATGAACAACAG CAGGGTGTGTGCGGGATGCTGGGCTTCCCCAGCGAGGTGCCTGTCGACAGCCACTACTACAGGAAAGTCTGGGA TCTGAAGATGAGGGACCCTAAGTCTAGGCTGAAGAGCCTGACGAATAAGAACTCCTTCTGGATCCACCAGGTCAC CTGCCCAGGTGGCATGCTGTGGTCAGCTGTGTGGCAGGCCTCACTTCCGCCCACCGAAGACAAAGCCACA ACGCAAAGGGTCCTGGGCAGAGGAGCCGAGGGTGCGCCTCCGGGGCCCAGGTGGGCCGAGGCCCGGGTGGA AGTGCTCATGAACCGCCAGTGGGGCACGGTCTGTGACCACAGGTGGAACCTCATCTCTGCCAGTGTCGTGTCG  ${\tt TCAGCTGGGCTTTGGCTCTGGGAGGCCCTCTTTGGGGCCCGGCTGGGCCAAGGGCTAGGGCCCATCCACCT}$ GAGTGAGGTGCGCTGCAGGGGATATGAGCGGACCCTCAGCGACTGCCCTGGAAGGGTCCCAGAATGGTTG CCAACATGAGAATGCTGCTGTCAGGTGCAATGTCCCTAACATGGGCTTTCAGAATCAGGTGCGCTTGGCTGG TGGGCGTATCCCTGAGGAGGGGCTATTGGAGGTGCAGGTGGAGGTGAACGGGGTCCCACGCTGGGGGAGCGTGTG CAAGGAAACCTGGTTCTGGTCGGGGACGCCAAGGGCCCAGGAGGTGGTGATGAGTGGGGTGCGCTGCTCAGGCAC AGTCTCCTGCATGGACAGTGCACCAGACCTGGTGATGAACGCCCAGCTAGTGCAGGAGACGGCCTACTTGGAGGA CCGCCCGCTCAGCCAGCTGTATTGTGCCCACGAGGAGAACTGCCTCTCCAAGTCTGCGGATCACATGGACTGGCC TGGACGCGATAGCTGGGTTTGGCACCAGTGCCACAGGCATTACCACAGCATTGAGGTCTTCACCCACTACGACCT AGGACTGCAGCGCGCTACGCATGTGCCAACTTTGGAGAACAGGGAGTGACTGTAGGCTGCTGGGACACCTACCG GCATGACATTGATTGCCAGTGGGTGGATATCACAGATGTGGGCCCCGGGAATTATATCTTCCAGGTGATTGTGAA CCCCCACTATGAAGTGGCAGAGTCAGATTTCTCCAACAATATGCTGCAGTGCCGCTGCAAGTATGATGGGCACCG GGTCTGCTGCACAACTGCCACACAGGGAATTCATACCCAGCCAATGCAGAACTCTCCCTGGAGCAGGAACAGCG TCTCAGGAACAACCTCATCTGAAGCTGTCACTGCACACTCCTAGCTGCTGCCGATACACCAGATACCTCAGCTTA TTGGAGCCATGCCCTTCACAGAGTCCCAACTCAGAGGAAAAGGGCCAGTGCCAAGGGGCACCAAGAACCTGCTCA GGAAGCCTTTTGATGGCAAGATCACCAATCCAGATGGTATTGCTCCCTCAGGATGGCTCTGGGCCTGCCCCTAAG GGCCTGTGGCCTATGGAATATGTCCTCCAGGCTTTGCTCAGCTGAGCTCCTCTTCTGTAAGGAAACCCAGTCATC CCTGAATCTTGCCACAGAGATCCGGGATTCAGGAGCTCTCAGTTTCTTAGGGATGGACTATGGCCCAGTCCCCCA TCTAAGTGGTGCTTTGCAAATGTCTTGGAGGAGTATAGGACAGAGGACCAAAATACACAGCAGGTAGTGTTAGCT CTCTGCTAGGAGCTCAAAGCAACACTTGTATCAAAATCACAACTGGCAGAAGCTGGTGGATCCAATCCTT TCTTCATCTGTTGTTATTTAGAACTCACCTCTCACACTCTGTTCTTTAGTGTCCTTACCTTTATCTTACCACACA TTACGGAGTGCTTGAGAAGGGGCAAGTTTCACAGAAATGGCCAGATAGGGCCTTCCTACAGAGCAGCAAGAGTAG GCCAAGCAGAAAGACTGCTGAGGTAACACGGACCCCAGCCCCTGTCAGGGCCTCTGCCAAGGAAATAATATGGAC CATTTACCTGGCAGGCAGTCTGCTCTCTCCAGGATCACCACGCATCTCAGGATTGGTCTAAACTTCAAGTCTCA ACCAAGTGTCTGAAGTGAACTTTGCATTGAATAAATTTTTTGCCATGGAAAGAACATCAAACAAGCCACTCATCTC TACAGAGATAAGAAAACAAGTTTGGCAGAGCAAGAGACAGAAGACCGTGGAGAAATCAGAAGGGGGAACAGTCAG TTTAGTTAAGGATGGAACCTGGGAAAGGCCACCATTCCTGCTTGATGGGGCTCTGATTTGCTCTTGCTCAAGTGG AATAAAACCCCATGGTCTTCTTGACATGATTCTTGATCTTTTCTCCACTGAGACACACTTAAGTGATGATCCTTA

# 3329/6881 FIGURE 3068B

#### 3330/6881 FIGURE 3069

MARSPPATLFLFLLLLGQPPPSRPQSLGTTKLRLVGPESKPEEGRLEVLHQGQWGTVCDDNFAIQEATVACRQLG
FEAALTWAHSAKYGQGEGPIWLDNVQCVGTESSLDQCGSNGWGVSDCSHSEDVGVICHPRRHRGYLSETVSNALG
PQGRRLEEVRLKPILASAKQHSPVTEGAVEVKYEGHWRQVCDQGWTMNNSRVVCGMLGFPSEVPVDSHYYRKVWD
LKMRDPKSRLKSLTNKNSFWIHQVTCLGTEPHMANCQVQVAPARGKLRPACPGGMHAVVSCVAGPHFRPPKTKPQ
RKGSWAEEPRVRLRSGAQVGEGRVEVLMNRQWGTVCDHRWNLISASVVCRQLGFGSAREALFGARLGQGLGPIHL
SEVRCRGYERTLSDCPALEGSQNGCQHENAAAVRCNVPNMGFQNQVRLAGGRIPEEGLLEVQVEVNGVPRWGSVC
SENWGLTEAMVACRQLGLGFAIHAYKETWFWSGTPRAQEVVMSGVRCSGTELALQQCQRHGPVHCSHGGGRFLAG
VSCMDSAPDLVMNAQLVQETAYLEDRPLSQLYCAHEENCLSKSADHMDWPYGYRRLLRFSTQIYNLGRTDFRPKT
GRDSWVWHQCHRHYHSIEVFTHYDLLTLNGSKVAEGHKASFCLEDTNCPTGLQRRYACANFGEQGVTVGCWDTYR
HDIDCQWVDITDVGPGNYIFQVIVNPHYEVAESDFSNNMLQCRCKYDGHRVWLHNCHTGNSYPANAELSLEQEQR

GGCCGCCCGCGCCCCCGATCGGGGCGGGGAATCCCCGGAGACCAGCCTCCTTAATCCCTTCCCC GCCGCCGCCCGCGCGGGTGCGCCCTGGCACCCTCTCCCTGCCCTCCAGCGTTTCCACTGTCGCCCGCGCCCGGG CCCGAGGCGAAACCTCGCGGTTCCTCTCCCTTCCCTGCTGAGACTAAGACGTGGACAGGGGCCGCGCAGATCCG TTGGCTGGTCCCAGGATGAGCGACGAGTTTGGTTTTAGCTGGGGATTGTGCTGGCATCCTGCGAAGCTCCTCCCA GCCGGTCTCTCTGTGCTCGGTTGTCTTGGGGTGGGGCCCATCCGCCGAGGTGGGGACCGATAGGAGAAGCCGGTG CAGTGCCAAACACACTAACTGTCCTGGCCTCTCCGTGACACAAGTCTCTTCCCAGCCTTCCTCACAGGCTTCT GCCGCCCCCTCATCTCCACCCTCCCCCATATCTGTTTGCATTAGGAGTTCCACGACCATGGTGGAATGTTAAGG TGAACCCCACCCTTCTTACAGATGGGGACCCAGAGCCTGCTCTTGGGAACAGCCAGAGTAAGATTGGAACCCAG ACTTGCAGTCCAGCGCTGTTTGCATTAAAAGGGTGGGTGAGTCAGGACCCCTGGCTCAGGAGCCGCCTCTCCTAA AAGAGGGTTTCAAGGCCAAATGGGTTTGTCAACGGTGCTGTCTCCCTTTCTTGGAGATGCTCATTAGCTTATCAA AGACTGAGAAGTCCCGCTGTTACAGAAATAATTTAGTTTGCTGTATTAACTGCTCCTGGGCCTGGAGCAGTATTC CAGTGAGGAAGTAGATTGCTGCCTCTAGCCAGAGACCTGAACTGGGGAATTTGAACATTCCTTTACATTGTTGGA GAAATGAAGCCAAAGTTATTCAGATGGTTTTCCCAGGCTAAAGGAAAGTCACCTGCAAGAGATCCCGGCACTGAT CTGGAGCAGCTGACAGGGTGGGTCTCCCTTACCAAAGAAACCACTCTCTGGCGCTGGGGTGACCTGCTGGC CGCTGCCCTGGGCTGGCAACACCATTCTGGCCTTGGCCTGCAGAAGCTTTCAGAGTCTTCACTGGCAGTAGGGGG AGATGGGGAGAGGAATGATCTCTGCCCAGCCCCTTCCTTTCCAAACCATGCAATGGAAGAGCCCAGATGGGTGAA GATTGATTTTGCCTTAACTCAAGAGAATTCCTGTTCTCCTTGTGCTATGATTTGGACACAAGATTCTGGATACCT GGAACTTAGCTGTGTACCCTAAACAGTGGATTTGAGTTCCAGCGTTTATTCTTTTTTCCTTTTTTCA GATCACCATCTAAGTTACATCTTTAGCTCAGGTCCATCCTTCTCAAGATCTCCTTCTTAGCCCCCAGCCCCTGG GTGCCTGTAGCATTCCAGAGCTCACTGCCCTTCTAGATGTGCCTTCCCGCTTGGCTTCCAGCGGCTTGTGCTCAC GGTGGCCACCCGACCTGCCCCCAGAACTTTTGGATACTGGAGGCAGTTGCATAGGTCTCCCTCTCTGGGCACCAG GACTCAGTCCAGCCCAAGACTACTCTGGGCAGCTCCCATCCCAGTCTGGGGCCATTTGCAGACTCAGGAAAGGAT TTCTACAGTGTTCTATAAAAGCCAAAAGAGAGAGGGGTTTGGGAAGAGTGAGGGTGGTTGGGGAGAGGGGACCG AAAAAAAAAAAACTCGA

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 ${\tt MLPPPPRQPPPQARAARGAVRLQRPFLRSPLGVLRLLQLLAGAAFWITIATSKYQGPVHFALFVSVLFWLLTLGLYFLTLLGKHELVPVLGSRWLMVNVAHDVLAAALYGAATGIMSDQMQRHSYCNLKDYPLPCAYHAFLAAAVCGGVCHGLYLLSALYGCGRRCQGKQEVA$ 

#### 3333/6881 FIGURE 3072

GATGGAGCCCGACCATCCTTTCTACAGCAACATCAGTAAGGATCGCAGGTATGCAGACCTCACAGAAGATCAGCT
ACCCTCCTGTGAGAGTCTGAAGGATACTATTGCCAGAGCTCTGCCCTTCTGGAATGAAGAAATAGTTCCCCAGAT
CAAGGAGGGGAAACGTGTACTGATTGCAGCCCATGGCAACAGCCTCCGGGGCATTGTCAAGCATCTGGAGGGTCT
CTCTGAAGAGGCTATCATGGAGCTGAACCTGCCGACTGGTATTCCCATTGTCTATGAATTGGACAAGAACAAGTG
AAGGCCGGCGGGGAGGATACTGTCCCGAGTGCTTCCTGGTGTGTATTAGAATCCCTTCCTGCCTTGTTTCATG
GCAGTGAAATGCCTCTTGGTCCTGTCCAAGTGTATCTTTCACTGATTTCTGAATCATGTTCTAGTTGCCC
TGCCACATGGGTCCAGTGTTCATCTGAGCATAACTGTACTAAATCCTTTTTCCATATCAGTATAAAAAGGAGTG
ATGTGCAATA

### 3334/6881 FIGURE 3073

GAGCCGGGCCGGGGCGCGAGTCGGAGGGGGTGGCAGTGAGCGGCGCAGAGGCTACGGGGCTCGGTTTG GCTGACTGGGGAGTCGGCAGGCAGGAACCATGCGAGGCCAGCGGAGCCTGCTGCTGGGCCCGGCCCGCCTCT GCCTCCGCCTCCTTCTGCTGCGGTTACAGGCGCCGCTGTCCACCTCTACTCCGGGGTCTAGTACAGCGCTGGC GCTACGGCAAGGTCTGCCTGCGCTCCTGCTCTACAACTCCTTTGGGGGCAGTGACACCGCTGTTGATGCTGCCT TTGAGCCTGTCTACTGGCTGGTAGACAACGTGATCCGCTGGTTTGGAGTGGTGTTCGTGGTCCTGGTGATCGTGC TGACAGGCTCCATTGTAGCTATCGCCTACCTGTGTGTCCTCCTCCTCCTCCGAACCTACTCAGTGCCACGAC TCTGCTGGCATTTCTTCTATAGCCACTGGAATCTGATCCTGATTGTCTTCCACTACCACGGCCATCACCACTC  $\tt CGCCTGGGTACCCACCCCAGGGCAGGAATGATATCGCCACCGTCTCCATCTGTAAGAAGTGCATTTACCCCAAGC$ CAGCCCGAACACACCACTGCAGCATCTGCAACAGGTGTGTGCTGAAGATGGATCACCACTGCCCCTGGCTAAACA ATTGTGTGGGCCACTATAACCATCGGTACTTCTTCTTCTTCTTTTTCATGACTCTGGGCTGTGTCTACTGCA GCTATGGAAGTTGGGACCTTTTCCGGGAGGCTTATGCTGCCATTGAGAAAATGAAACAGCTCGACAAGAACAAAC AGAGTCTTGTCTACCTCTGGTTCCTGTGCAGTTCTGTGGCACTTGCCCTGGGTGCCCTAACTGTATGGCATGCTG TTCTCATCAGTCGAGGTGAGACTAGCATCGAAAGGCACATCAACAAGAAGGAGACGTCGGCTACAGGCCAAGG GCAGAGTATTTAGGAATCCTTACAACTACGGCTGCTTGGACAACTGGAAGGTATTCCTGGGTGTGGATACAGGAA CCTGGGTGACTGCTCACCCACGCCTCTGTGATGCCAGTGTGAGCTGGACTGTGTCAGCCACGACTCGAGCACTCAT TCTGCTCCCTATGTTATTTCAAGGGCCTCCAAGGGCAGCTTTTCTCAGAATCCTTGATCAAAAAGAGCCAGTGGG GAAATCTTAGGACTGACATCCCTTTACTCAGGCAAACAGAAGTTCCAACCCCAGACTAGGGGTCAGGCAGCTAGC TACCTACCTTGCCCAGTGCTGACCCGGACCTCCTCCAGGATACAGCACTGGAGTTGGCCACCACCTCTTCTACTT GCTGTCTGAAAAAACACCTGACTAGTACAGCTGAGATCTTGGCTTCTCAACAGGGCAAAGATACCAGGCCTGCTG CTGAGGTCACTGCCACTTCTCACATGCTGCTTAAGGGAGCACAAATAAAGGTATTCGATTTTTAAAGAT

#### 3335/6881 FIGURE 3074A

GGGCGGGAGGACTCGACTCGGTGGGAGCCGCTAGAGCCGGGCGCCCCGGGGACGTAGCCTGTAGGGCCACCGGGTC CCCGTCAGAGGCGGCGGGGAGCAGCGGGGACTGCAGGCCGGGGTGCAGCGAACGCGACCCCGCGGGCTGCGGC CCGGTGTGTGCGGAGCGTGGCGGGCGCAGCTTACCGGGCGGAGGTGAGCGCGGCGCCGGCTCCTCCTGCGGCGGA CTTTGGGTGCGACTTGACGAGCGGTGGTTCGACAAGTGGCCTTGCGGGCCGGATCGTCCCAGTGGAAGAGTTGTA AATTTGCTTCTGGCCTTCCCCTACGGATTATACCTGGCCTTCCCCTACGGATTATACTCAACTTACTGTTTAGAA AATGTGGCCCACGAGACGCCTGGTTACTATCAAAAGGAGCGGGGTCGACGGTCCCCACTTTCCCCTGAGCCTCAG CACCTGCTTGTTTGGAAGGGGTATTGAATGTGACATCCGTATCCAGCTTCCTGTTGTGTCAAAACAACATTGCAA AATTGAAATCCATGAGCAGGAGGCAATATTACATAATTTCAGTTCCACAAATCCAACACAAGTAAATGGGTCTGT TATTGATGAGCCTGTACGGCTAAAACATGGAGATGTAATAACTATTATTGATCGTTCCTTCAGGTATGAAAATGA AAGTCTTCAGAATGGAAGGAAGTCAACTGAATTTCCAAGAAAAATACGTGAACAGGAGCCAGCACGTCGTGTCTC AAGATCTAGCTTCTCTGACCCTGATGAGAAAGCTCAAGATTCCAAGGCCTATTCAAAAATCACTGAAGGAAA AGTTTCAGGAAATCCTCAGGTACATATCAAGAATGTCAAAGAAGACAGTACCGCAGATGACTCAAAAGACAGTGT TGCTCAGGGAACAACTAATGTTCATTCCTCAGAACATGCTGGACGTAATGGCAGAAATGCAGCTGATCCCATTTC TGGGGATTTTAAAGAAATTTCCAGCGTTAAATTAGTGAGCCGTTATGGAGAATTGAAGTCTGTTCCCACTACACA AAAATCACAAAAAGAAAATGTCCTACAGTATTGTAGAAAATCTGGATTAÇAAACTGATTACGCAACAGAGAAAAGA AAGTGCTGATGGTTTACAGGGGGAGACCCAACTGTTGGTCTCGCGTAAGTCAAGACCAAAATCTGGTGGGAGCGG CCACGCTGTGGCAGAGCCTGCTTCACCTGAACAAGAGCTTGACCAGAACAAGGGGAAGGGAAGAGACGTGGAGTC TGTTCAGACTCCCAGCAAGGCTGTGGGCGCCAGCTTTCCTCTATGAGCCGGCTAAAATGAAGACCCCTGTACA ATATTCACAGCAACAAAATTCTCCACAAAAACATAAGAACAAAGACCTGTATACTACTGGTAGAAGAAATCTGT GAATCTGGGTAAAAGTGAAGGCTTCAAGGCTGGTGATAAAACTCTTACTCCCAGGAAGCTTTCAACTAGAAATCG AACACCAGCTAAAGTTGAAGATGCAGCTGACTCTGCCACTAAGCCAGAAAATCTCTCTTCCAAAACCAGAGGAAG TATTCCTACAGATGTGGAAGTTCTGCCTACGGAAACTGAAATTCACAATGAGCCATTTTTAACTCTGTGGCTCAC TCAAGTTGAGAGGAAGATCCAAAAGGATTCCCTCAGCAAGCCTGAGAAATTGGGCACTACAGCTGGACAGATGTG CTCTGGGTTACCTGGTCTTAGTTCAGTTGATATCAACAACTTTGGTGATTCCATTAATGAGAGTGAGGGAATACC TTTGAAAAGAAGGCGTGTGTCCTTTGGTGGGCACCTAAGACCTGAACTATTTGATGAAAACTTGCCTCCTAATAC GCCTCTCAAAAGGGGAGAAGCCCCAACCAAAAGAAAGTCTCTGGTAATGCACACTCCACCTGTCCTGAAGAAAAT CATCAAGGAACAGCCTCAACCATCAGGAAAACAAGAGTCAGGTTCAGAAATCCATGTGGAAGTGAAGGCACAAAG CTTGGTTATAAGCCCTCCAGCTCCTAGTCCTAGGAAAACTCCAGTTGCCAGTGATCAACGCCGTAGGTCCTGCAA AACAGCCCCTGCTTCCAGCAGCAAATCTCAGACAGAGGTTCCTAAGAGAGGGGGAGAAAGAGTGGCAACCTGCC TTCAAAGAGAGTGTCTATCAGCCGAAGTCAACATGATATTTTACAGATGATATGTTCCAAAAGAAGAAGTGGTGC AGTCATAAAACATGGTCCTCAAAGGTCAATGAACAAAAGGCAAAGAAGACCTGCTACTCCAAAGAAGCCTGTGGG CGAAGTTCACAGTCAATTTAGTACAGGCCACGCAAACTCTCCTTGTACCATAATAATAGGGAAAGCTCATACTGA AGATCTTTCAGGAATAGCTGAAATGTTCAAGACCCCAGTGAAGGAGCAACCGCAGTTGACAAGCACATGTCACAT CGCTATTTCAAATTCAGAGAATTTGCTTGGAAAACAGTTTCAAGGAACTGATTCAGGAGAAGAACCTCTGCTCCC CACCTCAGAGAGTTTTGGAGGAAATGTGTTCTTCAGTGCACAGAATGCAGCAAAACAGCCATCTGATAAATGCTC TGCAAGCCCTCCCTTAAGACGGCAGTGTATTAGAGAAAATGGAAACGTAGCAAAAACGCCCCAGGAACACCTACAA AATGACTTCTCTGGAGACAAAAACTTCAGATACTGAGACAGAGCCTTCAAAAACAGTATCCACTGCAAACAGGTC AGGAAGGTCTACAGAGTTCAGGAATATACAGAAGCTACCTGTGGAAAGTAAGAGTGAAGAAACAAATACAGAAAT AGAAAGACCTTTTGAGACATATAAGGAAAATATTGAATTAAAAGAAAACGATGAAAAGATGAAAGCAATGAAGAG ATCAAGAACTTGGGGGCAGAAATGTGCACCAATGTCTGACCTGACAGACCTCAAGAGCTTGCCTGATACAGAACT CATGAAAGACACGGCACGTGGCCAGAATCTCCTCCAAACCCAAGATCATGCCAAGGCACCAAAGAGTGAGAAAGG GAAGGCATCCCTGGGGAAAGTAGGTGTGAAAGAAGAGCTCCTAGCAGTCGGCAAGTTCACACGGACGTCAGGGGA GACCACGCACACGCACAGAGAGCCAGCAGGAGATGGCAAGAGCATCAGAACGTTTAAGGAGTCTCCAAAGCAGAT

#### 3336/6881 FIGURE 3074B

CCTGGACCCAGCAGCCCGTGTAACTGGAATGAAGAAGTGGCCAAGAACGCCTAAGGAAGAGGCCCAGTCACTAGA AGACCTGGCTGGCTTCAAAGAGCTCTTCCAGACACCAGGTCCCTCTGAGGAATCAATGACTGATGAGAAAACTAC CAAAATAGCCTGCAAATCTCCACCACCAGAATCAGTGGACACTCCAACAAGCACAAGCAATGGCCTAAGAGAAG TCTCAGGAAAGCAGATGTAGAGGAAGAATTCTTAGCACTCAGGAAACTAACACCATCAGCAGGGAAAGCCATGCT TACGCCCAAACCAGCAGGAGGTGATGAGAAAGACATTAAAGCATTTATGGGAACTCCAGTGCAGAAACTGGACCT GGCAGGAACTTTACCTGGCAGCAAAAGACAGCTACAGACTCCTAAGGAAAAGGCCCAGGCTCTAGAAGACCTGGC TGGCTTTAAAGAGCTCTTCCAGACTCCTGGTCACACCGAGGAATTAGTGGCTGCTGGTAAAACCACTAAAATACC CTGCGACTCTCCACAGTCAGACCCAGTGGACACCCCAACAAGCACAAAGCAACGACCCAAGAGAAGTATCAGGAA AGCAGATGTAGAGGGAGAACTCTTAGCGTGCAGGAATCTAATGCCATCAGCAGGCAAAGCCATGCACACGCCTAA ACCATCAGTAGGTGAAGAGAAAGACATCATCATATTTGTGGGAACTCCAGTGCAGAAACTGGACCTGACAGAGAA CTTAACCGGCAGCAAGACGCCACAAACTCCTAAGGAAGAGGCCCAGGCTCTGGAAGACCTGACTGGCTTTAA AGAGCTCTTCCAGACCCCTGGTCATACTGAAGAAGCAGTGGCTGCTGGCAAAACTACTAAAATGCCCTGCGAATC TTCTCCACCAGAATCAGCAGACACCCCAACAAGCACAAGAAGGCAGCCCAAGACACCTTTGGAGAAAAGGGACGT AGGTGAGGATAAAAGCATCAACGCGTTTAGGGAAACTGCAAAACAGAAACTGGACCCAGCAGCAAGTGTAACTGG GACACCAGTATGCACTGACAAGCCCACGACTCACGAGAAAACTACCAAAATAGCCTGCAGATCACAACCAGACCC AGTGGACACCAACAAGCTCCAAGCCACAGTCCAAGAGAAGTCTCAGGAAAGTGGACGTAGAAGAAGATTCTT CGCACTCAGGAAACGAACACCATCAGCAGGCAAAGCCATGCACACCCCAAACCAGCAGTAAGTGGTGAGAAAAA CATCTACGCATTTATGGCAACTCCAGTGCAGAAACTGGACCTGACAGAGAACTTAACTGGCAGCAAGAGACGGCT CACTGAGGAATCAATGACTAACGATAAAACTGCCAAAGTAGCCTGCAAATCTTCACAACCAGACCCAGACAAAAA CAAGCTCACAGACATCAGGAGAGACTACACACACACACAGAGCCAACAGGAGATGGTAAGAGCATGAAAGC ATTTATGGAGTCTCCAAAGCAGATCTTAGACTCAGCAGCAAGTCTAACTGGCAGCAAGAGGCAGCTGAGAACTCC TAAGGGAAAGTCTGAAGTCCCTGAAGACCTGGCCGGCTTCATCGAGCTCTTCCAGACACCAAGTCACACTAAGGA ATCAATGACTAACGAAAAAACTACCAAAGTATCCTACAGAGCTTCACAGCCAGACCTAGTGGACACCCCAACAAG GCCATCAGCAGGCAAAGCCATGCACACCCAAACCAGCAGTAGGTGAAGAGAAAGACATCAACACGTTTTTGGG AACTCCAGTGCAGAAACTGGACCAGCCAGGAAATTTACCTGGCAGCAATAGACGGCTACAAACTCGTAAGGAAAA GGCCCAGGCTCTAGAAGAACTGACTGGCTTCAGAGAGCTTTTCCAGACACCATGCACTGATAACCCCACGACTGA ACGGCCCAAGAAGCCTCAAGAAAGCAGACGTAGAGGAAGAATTTTTAGCATTCAGGAAACTAACACCATCAGC AGGCAAAGCCATGCACACGCCTAAAGCAGCAGTAGGTGAAGAGAAAGACATCAACACATTTGTGGGGACTCCAGT GGAGAAACTGGACCTGCTAGGAAATTTACCTGGCAGCAAGAGACGGCCACAAACTCCTAAAGAAAAAGGCCAAGGC TCTAGAAGATCTGGCTGGCTTCAAAGAGCTCTTCCAGACACCAGGTCACACTGAGGAATCAATGACCGATGACAA AATCACAGAAGTATCCTGCAAATCTCCACAACCAGACCCAGTCAAAACCCCAACAAGCTCCAAGCAACGACTCAA GATATCCTTGGGGAAAGTAGGTGTGAAAGAAGAGGTCCTACCAGTCGGCAAGCTCACACAGACGTCAGGGAAGAC CACACAGACACAGAGAGAGACAGCAGGAGATGGAAAGAGCATCAAAGCGTTTAAGGAATCTGCAAAGCAGATGCT GGACCCAGCAAACTATGGAACTGGGATGGAGAGGTGGCCAAGAACACCTAAGGAAGAGGCCCCAATCACTAGAAGA CCTGGCCGGCTTCAAAGAGCTCTTCCAGACACCAGACCACACTGAGGAATCAACAACTGATGACAAAACTACCAA AATAGCCTGCAAATCTCCACCACCAGAATCAATGGACACTCCAACAAGCACAAGGAGGCGGCCCAAAACACCTTT AGGAGATGAGGATAAAGGCATCAACGTGTTCAGGGAAACTGCAAAACAGAAACTGGACCCAGCAGCAAGTGTAAC CTTCCAGACACCAATATGCACTGACAAGCCCACGACTCATGAGAAAACTACCAAAATAGCCTGCAGATCTCCACA ACCAGACCCAGTGGGTACCCCAACAATCTTCAAGCCACAGTCCAAGAGAAGTCTCAGGAAAGCAGACGTAGAGGA AGAATCCTTAGCACTCAGGAAACGAACACCATCAGTAGGGAAAGCTATGGACACCCCAAACCAGCAGGAGGTGA

### 3337/6881 FIGURE 3074C

TGAGAAAGACATGAAAGCATTTATGGGAACTCCAGTGCAGAAATTGGACCTGCCAGGAAATTTACCTGGCAGCAA ACCAGGCACTGACAAGCCCACGACTGATGAGAAAACTACCAAAATAGCCTGCAAATCTCCACAACCAGACCCAGT GGACACCCCAGCAAGCACAAAGCAACGGCCCAAGAGAAACCTCAGGAAAGCAGACGTAGAGGAAGAATTTTTAGC ACTCAGGAAACGAACACCATCAGCAGGCAAAGCCATGGACACCAAAACCAGCAGTAAGTGATGAGAAAAATAT CAACACATTTGTGGAAACTCCAGTGCAGAAACTGGACCTGCTAGGAAATTTACCTGGCAGCAGGAGACAGCCACA GACTCCTAAGGAAAAGGCTGAGGCTCTAGAGGACCTGGTTGGCTTCAAAGAACTCTTCCAGACACCAGGTCACAC TGAGGAATCAATGACTGATGACAAAATCACAGAAGTATCCTGTAAATCTCCACAGCCAGAGTCATTCAAAACCTC AAGAAGCTCCAAGCAAAGGCTCAAGATACCCCTGGTGAAAGTGGACATGAAAGAAGAGCCCCTAGCAGTCAGCAA GCTCACACGGACATCAGGGGAGACTACGCAAACACACAGAGCCAACAGGAGATAGTAAGAGCATCAAAGCGTT TAAGGAGTCTCCAAAGCAGATCCTGGACCCAGCAGCAAGTGTAACTGGTAGCAGGAGGCAGCTGAGAACTCGTAA GGAAAAGGCCCGTGCTCTAGAAGACCTGGTTGACTTCAAAGAGCTCTTCTCAGCACCAGGTCACACTGAAGAGTC AATGACTATTGACAAAAACACAAAAATTCCCTGCAAATCTCCCCCACCAGAACTAACAGACACTGCCACGAGCAC AAAGAGATGCCCCAAGACACGTCCCAGGAAAGAAGTAAAAGAGGAGCTCTCAGCAGTTGAGAGGGCTCACGCAAAC ATCAGGGCAAAGCACACACACACAAAGAACCAGCAAGCGGTGATGAGGGCATCAAAGTATTGAAGCAACGTGC AAAGAAGAAACCCAGTAGAAGAGGAACCCAGCAGGAGAAGGCCAAGAGCACCTAAGGAAAAGGCCCAACC GACACGTGTGCAGAAGGTACAAGTAAAAGAAGAGCCTTCAGCAGTCAAGTTCACACAAACATCAGGGGAAACCAC GGATGCAGACAAAGAACCAGCAGGTGAAGATAAAGGCATCAAAGCATTGAAGGAATCTGCAAAACAGACACCGGC TCCAGCAGCAAGTGTAACTGGCAGCAGGAGACGGCCAAGAGCACCCAGGGAAAGTGCCCAAGCCATAGAAGACCT AGCTGGCTTCAAAGACCCAGCAGCAGGTCACACTGAAGAATCAATGACTGATGACAAAACCACTAAAATACCCTG CAAATCATCACCAGAACTAGAAGACACCGCAACAAGCTCAAAGAGACGGCCCAGGACACGTGCCCAGAAAGTAGA AGTGAAGGAGGAGCTGTTAGCAGTTGGCAAGCTCACACAAACCTCAGGGGAGACCACGCACACACGACAAAGAGCC GGTAGGTGAGGCCACAAGCATTTAAGCAACCTGCAAAGCGGAAGCTGGACGCAGAAGATGTAATTGG CAGCAGGAGACAGCCAAGAGCACCTAAGGAAAAGGCCCAACCCCTGGAAGATCTGGCCAGCTTCCAAGAGCTCTC TGACAGTGGAAAACCTCTAAAAATATCCAGAAGAGTTCTTCGGGCCCCTAAAGTAGAACCCGTGGGAGACGTGGT AAGCACCAGAGACCCTGTAAAATCACAAAGCAAAAGCAACACTTCCCTGCCCCACTGCCCTTCAAGAGGGGAGG GCCAGCCAGCAAGAAGCAGAGGGTTGCTCCCAGGGCAAGAGGCAAATCATCCGAACCCGTGGTCATCATGAAGAG AAGTTTGAGGACTTCTGCAAAAAGAATTGAACCTGCGGAAGAGCTGAACAGCAACGACATGAAAACCAACAAAGA GGAACACAAATTACAAGACTCGGTCCCTGAAAATAAGGGAATATCCCTGCGCTCCAGACGCCAAAATAAGACTGA GAAGACCTCCCCAGAGATGGACATTCAGAATCCAGATGATGGAGCCCGGAAACCCATACCTAGAGACAAAGTCAC TGAGAACAAAAGGTGCTTGAGGTCTGCTAGACAGAATGAGAGCTCCCAGCCTAAGGTGGCAGAGGAGAGCGGAGG GCAGAAGAGTGCGAAGGTTCTCATGCAGAATCAGAAAGGGAAAGGAGAAGCAGGAAATTCAGACTCCATGTGCCT GAGATCAAGAAAGACAAAAAGCCAGCCTGCAGCAAGCACTTTGGAGAGCAAATCTGTGCAGAGAGTAACGCGGAG GGATTTGCTGGGTCTGAATCGGCTTCATAAACTCCACTGGGAGCACTGCTGGGCTCCTGGACTGAGAATAGTTGA ACACCGGGGGCTTTGTGAAGGAGTCTGGGCCAAGGTTTGCCCTCAGCTTTGCAGAATGAAGCCTTGAGGTCTGTC CTCCAGGGCACGGTGGCAGGAACAACTATCCTCGTCTGTCCCAACACTGAGCAGGCACTCGGTAAACACGAATGA ATGGATGAGCGCACGGATGAATGGAGCTTACAAGATCTGTCTTTCCAATGGCCGGGGGCATTTGGTCCCCAAATT AAGGCTATTGGACATCTGCACAGGACAGTCCTATTTTTGATGTCCTTTCCTTTCTGAAAATAAAGTTTTGTGCTT TGGAGAATGACTCGTGAGCACATCTTTAGGGACCAAGAGTGACTTTCTGTAAGGAGTGACTCGTGGCTTGCCTTG

#### 3338/6881 FIGURE 3074D

GTCTCTTGGGAATACTTTTCTAACTAGGGTTGCTCTCACCTGAGACATTCTCCACCCGCGGAATCTCAGGGTCCC AGGCTGTGGGCCATCACGACCTCAAACTGGCTCCTAATCTCCAGCTTTCCTGTCATTGAAAGCTTCGGAAGTTTA AGTACTCTGTAAAGCATCATCATCCTTGGAGAGACTGAGCACTCAGCACCTTCAGCCACGATTTCAGGATCGCTT CCTTGTGAGCCGCTGCCTCCGAAATCTCCTTTGAAGCCCAGACATCTTTCTCCAGCTTCAGACTTGTAGATATAA CTCGTTCATCTTCATTTACTTTCCACTTTGCCCCCTGTCCTCTCTGTGTTCCCCAAATCAGAGAATAGCCCGCCA GGGAGCCAGGTGACATCATAAATACTTGCTGAATGAATGCAGAAATCAGCGGTACTGACTTGTACTATATTGGCT AGGGGCAGGGGGCACATCTGAGGGCTTCACAGGGCTGCAAAGGGTACAGGGATTGCACCAGGGCAGAACAGGG AGGCCAACCTCAAAACTTTCAGTAGGAATGTTGCTATGATCAAGTTGTTCTAACACTTTAGACTTAGTAGTAATT ATGAACCTCACATAGAAAAATTTCATCCAGCCATATGCCTGTGGAGTGGAATATTCTGTTTAGTAGAAAAATCCT TTAGAGTTCAGCTCTAACCAGAAATCTTGCTGAAGTATGTCAGCACCTTTTCTCACCCTGGTAAGTACAGTATTT CAAGAGCACGCTAAGGGTGGTTTTCATTTTACAGGGCTGTTGATGATGGGTTAAAAATGTTCATTTAAGGGCTAC CCCCGTGTTTAATAGATGAACACCACTTCTACACAACCCTCCTTGGTACTGGGGGAGGGGAGATCTGACAAATA GAGCTTCAGTTTCCAAGTGAATTTCCATGTAATAGGACATTCCCATTAAATACAAGCTGTTTTTACTTTTTCGCC CCACCAAGATCATTTCATCCAGTCCTGAGCTCAGCTTAAGGGAGGCTTCTTGCCTGTGGGTTCCCTCACCCCCAT GCCTGTCCTCCAGGCTGGGGCAGGTTCTTAGTTTGCCTGGAATTGTTCTGTACCTCTTTGTAGCACGTAGTGTTG TGCATTTCCTGGTTACTCTATCCCAGTGACCAGCCACAGGAGATGTCCAATAAAGTATGTGATGAAAATGGTCTT

GAGTATCCCGCTGTTCACCTACGGCCTGATCAAACTTGCCTTCCTGTCCTCCAAGACCAGAAGATGATGATTATT CTCCACCGTCTAAGAGACCAAAGGCCAATGAGCTACCGCAGCCACCAGTCCCGGAACCCGCCAATGCTGGGAAGC GGAAAGTGAGGGAGTTCAACTTCGAGAAATGGAATGCTCGCATCACTGATCTACGTAAACAAGTTGAAGAATTGT TTGAAAGGAAATATGCTCAAGCCATAAAAGCCAAAGGTCCGGTGACGATCCCGTACCCTCTTTTCTAGTCTCATG TTGAAGATCTTTATGTAGAAGGACTTCCTGAAGGAATTCCTTTTAGAAGGCCATCTACTTACGGAATTCCTCGCC TGGAGAGATATTACTTGCAAAGGAAAGGATTCGTTTTGTGATTAAGAAACATGAGCTTCTGAGTTCAACACGTG AATTTGAGGCACACCCGAATGATCTGTACGTGGAAGGACTGCCAGAAAACATTCCTTTCCGAAGTCCCTCATGGT ATGGAATCCCAAGGCTGGAAAAAATCATTCAAGTGGGCAATCGAATTAAATTTGTTATTAAAAGACCAGAACTTC TGACTCACAGTACCACTGAAGTTACTCAGCCAAGAACGAATACACCAGTCAAAGAAGATTGGAATGTCAGAATTA CCAAGCTACGGAAGCAAGTGGAAGAGTTTTTAATTTGAAATTTGCTCAAGCTCTTGGACTCACCGAGGCAGTAA AAGTACCATATCCTGTGTTTGAATCAAACCCGGAGTTCTTGTATGTGGAAGGCTTGCCAGAGGGGATTCCCTTCC GAAGCCCTACCTGGTTTGGAATTCCACGACTTGAAAGGATCGTCCACGGGAGTAATAAAATCAAGTTCGTTGTTA AAAAACCTGAACTAGTTATTTCCTACTTGCCTCCTGGGATGGCTAGTAAAATAAACACTAAAGCTTTGCAGTCCC CCAAAAGACCACGAAGTCCTGGGAGTAATTCAAAGGTTCCTGAAATTGAGGTCACCGTGGAAGGCCCTAATAACA ACAATCCTCAAACCTCAGCTGTTCGAACCCCGACCCAGACTAACGGTTCTAACGTTCCCTTCAAGCCACGAGGGA GAGAGTTTTCCTTTGAGGCCTGGAATGCCAAAATCACGGACCTAAAACAGAAAGTTGAAAATCTCTTCAATGAGA AATGTGGGGAAGCTCTTGGCCTTAAACAAGCTGTGAAGGTGCCGTTCGCGTTATTTGAGTCTTTCCCGGAAGACT TTTATGTGGAAGGCTTACCTGAGGGTGTGCCATTCCGAAGACCATCGACTTTTGGCATTCCGAGGCTGGAGAAGA TACTCAGAAACCAAAACTTAAGTTCATCATTAAAAAGCCCGAAATGTTTGAGACGGCGATTAAGGAGAGCA CCTCCTCTAAGAGCCCTCCCAGAAAAATAAATTCATCACCCAATGTTAATACTACTGCATCAGGTGTTGAAGACC TTAACATCATTCAGGTGACAATTCCAGATGATGATAATGAAAGACTCTCGAAAGTTGAAAAAGCTAGACAGCTAA GAGAACAAGTGAATGACCTCTTTAGTCGGAAATTTGGTGAAGCTATTGGTATGGGTTTTCCTGTGAAAGTTCCCT ACAGGAAAATCACAATTAACCCTGGCTGTGTGGTGGTTGATGGCATGCCCCCGGGGGTGTCCTTCAAAGCCCCCA GCTACCTGGAAATCAGCTCCATGAGAAGGATCTTAGACTCTGCCGAGTTTATCAAATTCACGGTCATTAGACCAT CAGACCCCACGTGGTAGACCTCTTCCCTCCTAGGCTTAAAGTATCAGTGGTTGAGAAGAGCTTTTCGGACCTGTT ACTACCCCAAGCTGTGTAATACTTGTATAACAGAAATACCTTCTATACAAACCTTTTTTTCTACTTTTAGATA  ${\tt GAAATGTCTACTTTTCAGCAGTTCTGTGAATTAAAGAGCAGAGTGACTGTGGGTCTGGAATGGCTGGTACTT}$ TTTTTATGTACTCAGCAGAGCCTTGAGTTACGGTGTTTATTTTCCAATCAAGTGAAGATATCTCCTACTTCTCCT ACTGGAACATCTCAGCTTCTGCAGTGAAGAAAATTCCTGTGATAGTTCAGTTCTTTAGTTTTTCTATTTGAAAA AAAAAAATCATTTAAATGATCCTTTGTTCACGGCTCTCCTTAATGACTGAGTGAACAGTTCCTATCTGTATATTT TCACCTAACAGTCAGAGGTCAGTATCTCAGCGTGTGAATTATAGAGGAAATACAGAGAGAACCTCTTCCACTTTT ACTTTTCGTCCAAATAAAATGCATGGTGTACCAGAAGTTGAAGATCGGGTTGAGGATTGGGGCTAGCTCGATGAC ACTAAGGCCCCAACATCGCGGGACCTGCTGTGGCGCGGATTCTTAGGAACGCTGTTCTAGCCGGCCCCCTCTCCA GGGGTCGCCGTGGCCGGCATTATTTCCTAGTTCTTCTTGTAACCCTGAGGTGCCAGCGCGGGGAGTGAGGAGGGG TCAGGGGGCTAAGGATGCAACCTCTGACGTTCTGCGCCTTCCTAGGAGAGTCTTACATGTGTTGAGATTTCACAA GCAATGCGAGTTGTAAAATACCAGCTCTACAAGAAGCTAGGCTCTGTGACGGCATAGTTTTCAGTAGCTTTATCA CAATATTCACAATGGAGAATTATATGACATGGTAGCAGAAATAGGCCCTTTTATGTGTTGCTTCTATTTTACCTC AAATTGTAGATATAGGGTAATCAATAAAATCCATCCATGCCTTTCACACACT

#### 3340/6881 FIGURE 3076

AATTCCTGTCCTCAGGCGCTGTCAGATCTGTGGTTTTTCTACTTGAAGGACACAATGTTTTCCAAACTAGCACAT TTGCAGAGGTTTGCTGTACTTAGTCGCGGAGTTCATTCTTCAGTGGCTTCTGCTACATCTGTTGCAACTAAAAAA ACAGTCCAAGGCCCTCCAACCTCTGATGACATTTTTGAAAGGGAATATAAGTATGGTGCACACAACTACCATCCT TTACCTGTAGCCCTGGAGAGAGAAAAGGTATTTACTTATGGGATGTAGAAGGCAGAAAATATTTTGACTTCCTG AGTTCTTACAGTGCTGTCAACCAAGGGCATTGTCACCCCAAGATTGTGAATGCTCTGAAGAGTCAAGTGGACAAA TTGACCTTAACATCTAGAGCTTTCTATAATAACGTACTTGGTGAATATGAGGAGTATATTACTAAACTTTTCAAC TACCACAAAGTTCTTCCTATGAATACAGGAGTGGAGGCTGGAGAGACTGCCTGTAAACTAGCTCGTAAGTGGGGC TATACCGTGAAGGGCATTCAGAAATACAAAGCAAAGATTGTTTTTGCAGCTGGGAACTTCTGGGGTAGGACGTTG TCTGCTATCTCCAGTTCCACAGACCCAACCAGTTACGATGGTTTTGGACCATTTATGCCGGGATTCGACATCATT CCCTATAATGATCTGCCCGCACTGGAGCGTGCTCTTCAGGATCCAAATGTGGCTGCGTTCATGGTAGAACCAATT CAGGGTGAAGCAGGCGTTGTTGTTCCGGATCCAGGTTACCTAATGGGAGTGCGAGAGCTCTGCACCAGGCACCAG GTTCTCTTTATTGCTGATGAAATACAGACAGGATTGGCCAGAACTGGTAGATGGCTGGTTGATTATGAAAAT GTCAGACCTGATATAGTCCTCCTTGGAAAGGCCCTTTCTGGGGGGCTTATACCCTGTGTCTGCAGTGCTGTGTGAT GATGACATCATGCTGACCATTAAGCCAGGGGAGCATGGGTCCACATACGGTGGCAATCCACTAGGCTGCCGAGTG GCCATCGCAGCCCTTGAGGTTTTAGAAGAAGAAAACCTTGCTGAAAATGCAGACAAATTGGGCATTATCTTGAGA AATGAACTCATGAAGCTACCTTCTGATGTTGTAACTGCCGTAAGAGGAAAAGGATTATTAAACGCTATTGTCATT AAAGAAACCAAAGATTGGGATGCTTGGAAGGTGTGTCTACGACTTCGAGATAATGGACTTCTGGCCAAGCCAACC CATGGCGACATTATCAGGTTTGCGCCTCCGCTGGTGATCAAGGAGGATGAGCTTCGAGAGTCCATTGAAATTATT AACAAGACCATCTTGTCTTTC<u>TGA</u>GGGTAGCCAGCTGTTTTCAGTGGTCCCTGGGAGCCAGCTGGAGACAGGTGG TTTTTTCAGTTGATACATAATAGAACAACGTTTATGAACCTGCCGTTTGCTTTGTAACGTAACTAAATAATGTA ATGGCATCTATATTCAGTTGAAGTGTTTTGATGTGCATGTGTACTTCCTAAGGTGAAATGCATCTATATACAGAC AGCCTCTAAATCAAGTCCTTCAGTATAATTGATATATGTTTTTTATAATTTCCTCACTGGTATAAGTGTTTCATAT TTGAAAAAGTTATCTCTGGGTATTGCATAAAAGGCTTCATCTTATAAAGTGAAATCATTGTTATTGAATTTTAGG AAGGATTAATGGTTAAGTGTATATAAAATACTAATATTAAGTAAACTTCATATTGGCCAACACCAGGGTTGTATT CTATGGATGTCATTATTTTGAATTAAGAATTAGTGTTTAACATTCCTAAATTGTTTTGAGTGCTTGATTATAATT TGTAAAAAATGTTTATTTTCAATACTTCTTTAAATTTAAAATAAAGCTTATATTTCAAATGTC

MFSKLAHLQRFAVLSRGVHSSVASATSVATKKTVQGPPTSDDIFEREYKYGAHNYHPLPVALERGKGIYLWDVEG RKYFDFLSSYSAVNQGHCHPKIVNALKSQVDKLTLTSRAFYNNVLGEYEEYITKLFNYHKVLPMNTGVEAGETAC KLARKWGYTVKGIQKYKAKIVFAAGNFWGRTLSAISSSTDPTSYDGFGPFMPGFDIIPYNDLPALERALQDPNVA AFMVEPIQGEAGVVVPDPGYLMGVRELCTRHQVLFIADEIQTGLARTGRWLAVDYENVRPDIVLLGKALSGGLYP VSAVLCDDDIMLTIKPGEHGSTYGGNPLGCRVAIAALEVLEEENLAENADKLGIILRNELMKLPSDVVTAVRGKG LLNAIVIKETKDWDAWKVCLRLRDNGLLAKPTHGDIIRFAPPLVIKEDELRESIEIINKTILSF

GCCGCCGCCACACCGGCCCTTCGGGAGCGTCTGAGGAGGCGCGGGCCGCTGCGGGCTCGGGCCGCAGCGC GCCGGCCCGAGCCCTGGACGAGGCCCACGGAGCCGCTCGCCCCGACCCAGCCGCCCGATGTCCTCAAAATGGAG GCAGCGGGGGCGCGCGTGAAGAAGCGGCGCTGTGGGCGCGGGAGTAGGGGCCCGGGGCGGAGCCGGTGGCGGG GTGCCGGGCCTGCTCCTAAGGGAGTACCTTTATGGCGGCGGCCGGGATGAGGAGCCCTCCGGAGCGCCCCTGAG ACCATCCTATTCCTGTTCCGGGAGTTGCGGGACACCGCGCTGACCCGCCGCTGGGTCACCAAGAAGATCAAGGTG GAGTTCGAGGAGCTGCTGCAGACCAAGACGGCCGGGCCCTGCTGGAGGGGCTGAGCCTGCGGGACGTGTTCCTG GGCGAGACGGTGCCCTTCATCAAGACCATCCGGCTCGTGCGGCCAGTCGTGCCCTCGGCCACCGGGGAGCCCGAT GGCCCTGAAGGGGAGGCGCCTGCCCGCCCGAGGAGCTGGCCTTCGAGGCGGAGGTGGAGTACAACGGG GTGGGAAGGCTGCGCTTGTCTTTACGCGCGTGCCCTTCACCCACTGGTTCTTCTCCTTCGTGGAAGACCCGCTG ATCGACTTCGAGGTGCGCTCCCAGTTTGAAGGGCGGCCCATGCCCCAGCTCACCTCCATCATCGTCAACCAGCTC AAGAAGATCATCAAGCGCAAGCACCCCTACCGAATTACAAGATCAGGTTGAATTAATAAAAGGAAATTTAĆAAA GTGTTGGACTTACACTTCGTCTTGTCCAGTCAACTGATGGGTATGCTGGGCACGTCATCATTGAAACTGTGGCTC CAAACTCGCCTGCTGCAATTGCAGATCTTCAGCGGGGAGATCGACTTATCGCCATTGGAGGTGTGAAAATCACAT AGAGTAATCAAGGTGCAGTGCTGCAAGATAACTTTGGCCAGTTGGAAGAAAACTTTTTGTCAAGCTCATGCCAAT TGGCAAGTGATGTCAGAGCACAAAATGAGTTCAAAGATGAGGCACAATCATTAAGTCATAGTCCCAAACGTGTTC CAACAACACTTTCTATTAAACCCCTTGGAGCTATATCACCAGTTTTAAACCGTAAATTAGCTGTAGGAAGTCACC CACTACCACCGAAAATTCAGTCCAAAGATGGAAATAAACCTCCACCCCTAAAAACTTCTGAGATAACAGACCCAG CACAAGTGTCAAAACCAACCCAAGGATCTGCTTTCAAACCACCTGTGCCACCACGACCACAAGCGAAAGTTCCTT TGCCTTCCGCCGATGCTCCAAATCAGGCAGAACCAGATGTTCTCGTTGAAAAGCCAGAGAAGGTGGTGCCACCTC CTCTTGTAGATAAATCTGCTGAAAAGCAAGCAAAAAATGTGGATGCCATAGACGATGCAGCTGCACCTAAGCAAT TTTTAGCAAAGCAAGAAGTGGCCAAAGATGTCACTTCAGAAACTTCCTGCCCTACTAAGGACAGTTCGGACGACC GTCAAACATGGGAATCATCAGAAATTCTTTATCGTAATAAGCTAGGAAAATGGACAAGAACCAGAGCATCCTGTT TGTTTGACATAGAAGCCTGTCACAGGTACTTAAACATTGCATTGTGGTGCAGGGATCCTTTCAAGTTGGGAGGTC TCATCTGTTTGGGGCATGTTAGTTTAAAACTTGAAGATGTGGCTTTAGGATGCCTAGCTACATCAAACACGGAAT ACCTTTCCAAATTGAGACTGGAAGCCCCCTCACCTAAGGCTATAGTCACTAGAACCGCACTACGCAATCTGAGTA TGCAAAAGGGATTCAATGACAAATTTTGCTATGGTGACATTACTATTCACTTCAAATATTTGAAAGAAGGAGAAT CAGACCACCATGTAGTTACTAACGT

MGLLLMILASAVLGSFLTLLAQFFLLYRRQPEPPADEAARAGEGFRYIKPVPGLLLREYLYGGGRDEEPSGAAPE GGATPTAAPETPAPPTRETCYFLNATILFLFRELRDTALTRRWVTKKIKVEFEELLQTKTAGRLLEGLSLRDVFL GETVPFIKTIRLVRPVVPSATGEPDGPEGEALPAACPEELAFEAEVEYNGGFHLAIDVDLVFGKSAYLFVKLSRV VGRLRLVFTRVPFTHWFFSFVEDPLIDFEVRSQFEGRPMPQLTSIIVNQLKKIIKRKHTLPNYKIRLN

AATCAAGAGGTTCCAATCTTTGTGTTCACTTTAAGAACACCATGAAACTGCTCAGGCCATCAAGGGTATACATAT ATGAAAAGCCAAGAAGTATCTGAAAGATGTCACTTTACAGAAACAGTGTGTACCATTCCTACGTTACAATGGTGG AGTTAGCAGGTGTACCAGGCCCAAGAAGAGTGCTGAATTCTC TGGTCATTGAGCACCAAGAGCACCAAGAACACACCAAGAGCCCCGCGGACCCACAGAGCTCATGGTCGGATTA ACCCATACATGAGCTCTCCCTGCCACATTGAGATGATCCTTACGGAAAAAGATTGTTCCTAAATCAGAAG AGGAGGTTGCCCAGAAGAAAAAAAAACTTATGGCACAGGAGTAAATTC AGCATTAAAATAAATGTAATTAAAAGG

 ${\tt MSLYRNSVYHSYVTMVELAGVRRPSSGAGHKVGGPKRVLNSLVIEHIQVNKTPKMRRRTHRAHGRINPYMSSPCHIEMILTEKEQIVPKSEEEVAQKKKISQKKLKKQKLMAQE}$ 

#### 3346/6881 FIGURE 3082A

GGCGACTGCTGGCGAGGCGCGTGGGACCTTACGCTGGTTCCCCTTCGTCTCCCCGGCCCGGGCCACTAGAG  ${\tt AGTTCGCTGACGCCGGGTGAGCTGAGCCTGCCGCCAAG} \underline{{\tt ATG}} {\tt CCGGCCTATTTTCAGAGGCCGGAAAATGCCCTCA}$ AACGCGCCAACGAATTTCTTGAGGTTGGCAAAAAGCAGCCTGCTCTGGATGTTCTTTATGATGTTATGAAAAGTA AAAAACATAGAACATGGCAAAAGATACACGAACCAATTATGTTGAAATACTTGGAACTTTGCGTGGATCTTCGCA AGAGCCACTTGGCAAAGGAGGGGTTATACCAGTATAAGAACATTTGTCAACAGGTGAACATAAAATCTCTGGAGG ATGTTGTTAGGGCATATTTGAAAATGGCAGAGGAAAAAACTGAAGCTGCTAAAGAAGAATCTCAGCAGATGGTCT TAGATATAGAGGATCTAGATAATATTCAAACTCCTGAGAGTGTTCTCCTAAGTGCTGTAAGTGGTGAAGACACTC AGGATCGTACTGACAGATTACTTTTAACTCCATGGGTTAAATTCCTGTGGGAGTCTTACAGGCAGTGTTTGGACC TTCTTAGAAACAATTCTAGAGTAGAGCGCCTGTACCATGATATTGCCCAGCAAGCTTTCAAATTCTGCCTCCAAT ACACGCGTAAGGCTGAATTCCGTAAACTGTGTGACAATTTGAGAATGCACTTATCGCAGATTCAGCGCCACCATA ACCAAAGTACGGCAATCAATCTTAATAATCCAGAGAGCCAGTCCATGCATTTGGAAACCAGACTTGTTCAGCTGG ACAGTGCTATCAGCATGGAATTGTGGCAGGAAGCATTCAAAGCTGTGGAAGATATTCACGGGCTATTCTCCTTGT CTAAAAAACCACCTAAACCTCAGTTGATGGCAAATTACTATAACAAAGTCTCAACTGTGTTTTGGAAATCTGGAA ATGAGATGCAAAGAATGTCTACTAGAGTCCTTTTAGCCACTCTTTCCATCCCTATTACTCCTGAGCGTACGGATA TTGCTCGACTTCTGGATATGGATGGCATTATAGTTGAAAAACAGCGTCGCCTTGCAACACTACTAGGTCTTCAAG CCCCACCGACACGAATTGGCCTTATTAATGATATGGTCAGATTTAATGTACTACAATATGTTGTCCCAGAAGTGA AAGACCTTTACAATTGGCTTGAAGTAGAATTTAACCCATTAAAACTCTGTGAGCGAGTCACAAAGGTTCTAAATT GGGTTAGGGAACAACCTGAAAAGGAACCGGAATTGCAGCAGTATGTGCCACAACTGCAAAACAACACCATCCTCC GCCTTCTGCAGCAGGTGTCACAGATTTATCAGAGCATTGAGTTTTCTCGTTTGACTTCTTTGGTTCCTTTTGTTG ATGCTTTCCAACTGGAACGGGCCATAGTAGATGCAGCCAGGCATTGCGACTTGCAGGTTCGTATTGATCACACTT CTCGGACCCTGAGTTTTGGATCTGAATTATGCTACTCGAGAAGATGCTCCGATTGGTCCTCATTTGCAAA GCATGCCTTCAGAGCAGATAAGAAACCAGCTGACAGCCATGTCCTCAGTACTTGCAAAAGCACTTGAAGTCATTA AACCAGCTCATATACTGCAAGAGAAGAAGAACAGCATCAGTTGGCTGTCACTGCATACCTTAAAAATTCACGAA AAGAGCACCAGCGGATCCTGGCTCGCCGCCAGACAATTGAGGAGAAAAAGAGCGCCTTGAGAGTCTGAATATTC GCCAGGAAGCAAAGGAGAGAGAAGGAGCGTATCTTACAGGAACATGAACAAATCAAAAAGAAAACTGTCCGAG AGCGTTTGGAGCAGATCAAGAAAACAGAACTGGGTGCCAAAGCATTCAAAGATATTGATATTGAAGACCTTGAGG TAAAGAATCAAGAAAAGAAGATTGACTATTTTGAAAGAGCCAAACGTTTGGAAGAAATTCCTTTGATAAAGAGCG CTTACGAGGAACAGAGAATTAAAGACATGGATCTGTGGGAGCAACAAGAGGAAGAAGAATTACTACAATGCAGC TAGAACGTGAAAAGGCTCTTGAACATAAGAATCGAATGTCACGAATGCTTGAAGACAGAGATTTATTCGTAATGC GACTCAAAGCTGCACGGCAGTCTGTTTATGAGGAAAAACTTAAACAGTTTGAAGAGCGATTAGCAGAAGAAAGGC ATAATCGATTGGAAGAACGGAAAAGGCAGCGTAAAGAAGAACGCAGGATAACATACTATAGAGAAAAAGAAGAGG AGGAAGAGCTACGAGAGTATCAGGAGCGGGTGAAGAAATTAGAAGAAGTGGAAAGGAAAAAACGCCAAAGGGAGT CTCGTTGGGGAGATAGAGATTCAGAAGGCACCTGGAGAAAAGGACCTGAAGCAGATTCTGAGTGGAGAAGAGGCC CGCCAGAGAAGGAGTGGAGACGTGGAGAAGGGCCGAGATGAGGACAGGTCTCATAGAAGAGATGAAGAGCGCCCCC GGCGTCTGGGGGATGATGAAGATAGAGAGCCCTCTCTTAGACCAGACGATGATCGGGTTCCCCGGCGTGGCATGG ATGATGACAGAGGCCCTAGACGTGGTCCTGAGGAAGATAGGTTCTCTCGTCGTGGGGGCAGACGATGACCGGCCTT CCTGGCGTAACACAGATGATGACAGGCCTCCCAGACGAATTGCCGATGAAGACAGGGGAAACTGGCGTCATGCGG ATGATGACAGACCACCTAGACGAGGACTGGATGAGGACAGAGGAAGCTGGCGAACAGCTGATGAGGACAGAGGAC CAAGACGTGGGATGATGACCGGGGGCCGAGGCGAGGGGGCGCTGATGATGAGCGATCATCCTGGCGTAATG CTGATGATGACCGGGGTCCCAGGCGAGGGTTGGATGATGATCGGGGTCCCAGGCGAGGCATGGATGATGACCGGG GTCCCAGGCGAGGCATGGATGATGACCGGGGTCCCAGGCGAGGCATGGATGATGACCGGGGTCCCAGGCGAGGGT TGGATGATGATCGAGGACCTTGGAGGAACGCCGATGATGACAGAATTCCCAGGCGTGGTGCAGAGGATGACAGGG GCCCTTGGAGAACATGGATGATGATCGCCTTTCAAGACGTGCTGATGATCAGTCTCCCAGACGGGGTGATG

#### 3347/6881 FIGURE 3082B

GCTTCAGAAGACCTAGGGATGAAGGTGGCTGGAGAAGAGGACCAGCTGAGGAATCTTCAAGCTGGAGAGACTCAA GTCGCCGGGACGATAGGGATAGGGATGACCGTCGCCGTGAGAGGGGATGACCGGCGTGATCTAAGAGAAAAGACGAG CTGATGACAGGAAAGATGACCGGGTGGAAGAGCGGGACCCTCCTCGTCGAGTTCCTCCCCCAGCTCTTTCAAGAG ACCGAGAAAGAGACCGAGACCGAGAAAGAGAAAGGTGAAAAAGAGAAGGCCTCATGGAGAGCTGAGAAAGATAGGG GGATTTAAACTGGTGTCTTAAATAGGTTTGATCACATTCAAGGATTATTATACTTGTGCTTCAACCAATCTAAAT TGGATTCTTTAATGTTGTTTCACCATAACACAAAAAGCATGAACTTGTATTAATCCTATATAATAGATTGATCAT GCACCATATCCACAGGAGGTTGGAAAAACCATGCCATTTTCTGGAATTTAAGGGTGTTGCATTATTCATCAATC ATTTGTTGACAAAAAAGAAAAACTAAAAAATAAATTTAAAATGTGACCCTTCAGGTATTGAGTAACACCTTTATC TTGGTATAGAACTGATACTTTTTTTTTTGATTTTGAAATATCTGATAATAATTTGGAATGAAGTAAGGTTCTGTTA AAATATTTTGAAGACCCTTTAAAGCAGTGAATCTGAAACAATTTTCACACCCTTAAGTGGTTGATACGTACCTA TTTTAGGTATTTTGAGGTATTTACCATAAACTAAATTTAGAAATTTTTTAGATTCACTTGAAGTAAACATTACAA ACATTGGATACGGTGGGGTTTTCTTTAGATTTTACTTGAGAGAAGGTGAGTACAAAGCAATTTGCAGTTGTTGTA ATGACAAGATTACTGCGCAAGTGTGAATCCAAACAGTATAGCTTTTAAATTTTAAAGCATTTGGTAAATTATCGC TGAGTTTTTTTCTGTTGCCAATAGCAAACTGCTTTTCCATTAATGGAGAATTCATGCCTTTCAAGCATTTTAAAT AGATTCTTTCAACAAGTAATTTGTAGTAATGACTGTGTTGACTTCAATTTTGGAGCGCAGTAGCTATGTTAAAGA **ACAG** 

### 3348/6881 FIGURE 3083

MPAYFQRPENALKRANEFLEVGKKQPALDVLYDVMKSKKHRTWQK1HEP1MLKYLELCVDLRKSHLAKEGLYQYK NICQQVNIKSLEDVVRAYLKMAEEKTEAAKEESQQMVLDIEDLDNIQTPESVLLSAVSGEDTQDRTDRLLLTPWV KFLWESYRQCLDLLRNNSRVERLYHDIAQQAFKFCLQYTRKAEFRKLCDNLRMHLSQIQRHHNQSTAINLNNPES QSMHLETRLVQLDSAISMELWQEAFKAVEDIHGLFSLSKKPPKPQLMANYYNKVSTVFWKSGNALFHASTLHRLY HLSREMRKNLTQDEMQRMSTRVLLATLSIPITPERTDIARLLDMDGIIVEKQRRLATLLGLQAPPTRIGLINDMV RFNVLQYVVPEVKDLYNWLEVEFNPLKLCERVTKVLNWVREQPEKEPELQQYVPQLQNNTILRLLQQVSQIYQSI EFSRLTSLVPFVDAFQLERAIVDAARHCDLQVRIDHTSRTLSFGSDLNYATREDAPIGPHLQSMPSEQIRNQLTA MSSVLAKALEVIKPAHILQEKEEQHQLAVTAYLKNSRKEHQRILARRQTIEERKERLESLNIQREKEELEQREAE LQKVRKAEEERLRQEAKEREKERILQEHEQIKKKTVRERLEQIKKTELGAKAFKDIDIEDLEELDPDFIMAKQVE QLEKEKKELQERLKNQEKKIDYFERAKRLEEIPLIKSAYEEQRIKDMDLWEQQEEERITTMQLEREKALEHKNRM SRMLEDRDLFVMRLKAARQSVYEEKLKQFEERLAEERHNRLEERKRQRKEERRITYYREKEEEEEQRRAEEQMLKE REERERAERAKREEELREYQERVKKLEEVERKKRQRELEIEERERRREEERRLGDSSLSRKDSRWGDRDSEGTWR KGPEADSEWRRGPPEKEWRRGEGRDEDRSHRRDEERPRRLGDDEDREPSLRPDDDRVPRRGMDDDRGPRRGPEED RFSRRGADDDRPSWRNTDDDRPPRRIADEDRGNWRHADDDRPPRRGLDEDRGSWRTADEDRGPRRGMDDDRGPRR  ${\tt GGADDERSSWRNADDDRGPRRGLDDDRGPRRGMDDDRGPRRGMDDDRGPRRGMDDDRGPRRGLDDDRGPWRNADD}$ DRIPRRGAEDDRGPWRNMDDDRLSRRADDDRFPRRGDDSRPGPWRPLVKPGGWREKEKAREESWGPPRESRPSEE ERDDRRDLRERRDLRODRDRRGPPLRSEREEVSSWRRADDRKDDRVEERDPPRRVPPPALSRDRERDRDREREGE KEKASWRAEKDRESLRRTKNETDEDGWTTVRR

CTCCACGCGCGGCCTGGCGGCGGCCACTCTAACCAGCGCAAAATGTCCCTGGAACAGGAGGAGGAAACGCAA CCTGGGCGGCTCCTAGGACGCAGAGACGCCGTCCCCGCCTTCATTGAGCCCAACGTGCGCTTCTGGATCACCGAG CGCCAATCCTTTATTCGACGATTTCTTCAATGGACAGAATTATTAGATCCTACAAATGTGTTCATTTCAGTTGAA AGTATAGAAAACTCGAGGCAACTATTGTGCACAAATGAAGATGTTTCCAGCCCTGCCTCGGCGGACCAAAGGATA GCAGCGTTCCTGCCTTTCATGGCACCCACGGTATTTTTGTCAATGACGCCACTGAAAGGGATCAAGTCCGTGATT TTACCTCAGGTTTTCCTCTGTGCCTACATGGCAGCGTTCAACAGCATCAATGGAAACAGAAGTTACACTTGTAAG CCACTAGAAAGATCATTACTAATGGCGGGAGCCGTTGCTTCTTCAACTTTCTTAGGAGTAATCCCTCAGTTTGTC CAGATGAAGTATGGCCTGACTGGCCCTTGGATTAAAAGACTCTTACCTGTGATCTTCCTCGTGCAAGCCAGTGGA GGTCATTCCAGAATTGCTGGGACAAAGGCTGTTAGAGAAACGCTAGCATCCAGAATAGTGCTGTTTGGGACCTCA GCTCTGATTCCTGAAGTCTTCACCTACTTTTTTAAAAGGACCCAGTATTTCAGGAAAAACCCAGGGTCATTGTGG ATTTTGAAACTGTCTTGTACTGTCCTGGCAATGGGACTGATGGTGCCATTTTCTTTTAGTATATTTCCACAGATT GGACAGATACAGTACTGTAGTCTTGAAGAGAAAATTCAGTCTCCAACAGAAGAAACAGAAATCTTTTATCACAGA GGGGTG<u>TAG</u>GCGTGAGTTTTAGGTGAATTTATGTGGTTCCTGCTTGAAAACCTTCCCCTCTCCAGGTTCGGTTTA CCCCTGGGGTTGCTGAGGGAACGGTTGGAGTGGGGATCGGCCTGCGAAAGGATACTGTGAAATCACTAATTAACT AATAAACCTGTCTCAAGTTGAGGATTTGAAGAAA

## 3350/6881 FIGURE 3085

MSLEQEEETQPGRLLGRRDAVPAFIEPNVRFWITERQSFIRRFLQWTELLDPTNVFISVESIENSRQLLCTNEDV SSPASADQRIQEAWKRSLATVHPDSSNLIPKLFRPAAFLPFMAPTVFLSMTPLKGIKSVILPQVFLCAYMAAFNS INGNRSYTCKPLERSLLMAGAVASSTFLGVIPQFVQMKYGLTGPWIKRLLPVIFLVQASGMNVYMSRSLESIKGI AVMDKEGNVLGHSRIAGTKAVRETLASRIVLFGTSALIPEVFTYFFKRTQYFRKNPGSLWILKLSCTVLAMGLMV PFSFSIFPQIGQIQYCSLEEKIQSPTEETEIFYHRGV

CTGAAG<u>ATG</u>GCGGCTGCTGTAGGACGGTTGCTCCGAGCGTCGGTTGCCCGACATGTGAGTGCCATTCCTTGGGGC ATTTCTGCCACTGCAGCCCTCAGGCCTGCTGCATGTGGAAGAACGAGCTTGACAAATTTATTGTGTTCTGGTTCC AGTCAAGCAAAATTATTCAGCACCAGTTCCTCATGCCATGCACCTGCTGTCACCCAGCATGCACCCTATTTTAAG GGTACAGCCGTTGTCAATGGAGAGTTCAAAGACCTAAGCCTTGATGACTTTAAGGGGAAATATTTTGGTGCTTTTC TTCTATCCTTTGGATTTCACCTTTGTGTGTCCTACAGAAATTGTTGCTTTTAGTGACAAAGCTAACGAATTTCAC GACGTGAACTGTGAAGTTGTCGCAGTCTCAGTGGATTCCCACTTTAGCCATCTTGCCTGGATAAATACACCAAGA AAGAATGGTGGTTTGGGCCACATGAACATCGCACTCTTGTCAGACTTAACTAAGCAGATTTCCCGAGACTACGGT GTGCTGTTAGAAGGTTCTGGTCTTGCACTAAGAGGTCTCTTCATAATTGACCCCAATGGAGTCATCAAGCATTTG AGCGTCAACGATCTCCCAGTGGGCCGAAGCGTGGAAGAAACCCTCCGCTTGGTGAAGGCGTTCCAGTATGTAGAA ACACATGGAGAAGTCTGCCCAGCGAACTGGACACCGGATTCTCCTACGATCAAGCCAAGTCCAGCTGCTTCCAAA GAGTACTTTCAGAAGGTAAATCAG**TAG**ATCACCCATGTGTATCTGCACCTTCTCAACTGAGAGAAGAACCACAGT TGAAACCTGCTTTTATCATTTTCAAGATGGTTATTTGTAGAAGGCAAGGAACCAATTATGCTTGTATTCATAAGT ATTACTCTAAATGTTTTGTTTTTGTAATTCTGGCTAAGACCTTTTAAACATGGTTAGTTGCTAGTACAAGGAATC CTTTATTGGTAACATCTTGGTGGCTGGCTAGCTAGTTTCTACAGAACATAATTTGCCTCTATAGAAGGCTATTCT TAGATCATGTCTCAATGGAAACACTCTTCTTTCTTAGCCTTACTTGAATCTTGCCTATAATAAAGTAGAGCAACA CACATTGAAAGCTTCTGATCAACGGTCCTGAAATTTTCATCTTGAATGTCTTTGTATTAAACTGAATTTTCTTTT TTTATGTAGTCATTTTACTTATTTTATTCATTAGCTAACTTTGTCTATGTATATTTCTAGATATTGATTAGTGTA ATCGATTATAAAGGATATTTATCAAATCCAGGGATTGCATTTTGAAATTATAATTATTTCTTTGCTGAAGTATT CATTGTAAAACATACAAAATAAACATATTTTAAA

## 3352/6881 FIGURE 3087

MAAAVGRLLRASVARHVSAIPWGISATAALRPAACGRTSLTNLLCSGSSQAKLFSTSSSCHAPAVTQHAPYFKGT AVVNGEFKDLSLDDFKGKYLVLFFYPLDFTFVCPTEIVAFSDKANEFHDVNCEVVAVSVDSHFSHLAWINTPRKN GGLGHMNIALLSDLTKQISRDYGVLLEGSGLALRGLFIIDPNGVIKHLSVNDLPVGRSVEETLRLVKAFQYVETH GEVCPANWTPDSPTIKPSPAASKEYFQKVNQ

CAGAGGGAGGAAGAAGCGGCGGCGGCGGCGGCGGCGGCGCCCTCTTTGCAGAGGGGGAAACTCTTGGGCT GAGAGCAGGAATAATGCGGTAGGCAAGGCGGGCTGCTGGCTCCCCCGGCTCCGGCAGCAGCGGCGGCAGCCCGAG GGAAAAGCAAGAAGTGGAAAGAAATCCTGAAGTTCCCTCACATTAGCCAGTGTGAAGACCTCCGAAGGACCATAG ACAGAGATTACTGCAGTTTATGTGACAAGCAGCCAATCGGGAGGCTGCTTTTCCGGCAGTTTTGTGAAACCAGGC CTGGGCTGGAGTGTTACATTCAGTTCCTGGACTCCGTGGCAGAATATGAAGTTACTCCAGATGAAAAACTGGGAG AGAAAGGGAAGGAAATTATGACCAAGTACCTCACCCCAAAGTCCCCTGTTTTCATAGCCCAAGTTGGCCAAGACC TGGTCTCCCAGACGGAGGAGAAGCTCCTACAGAAGCCGTGCAAAGAACTCTTTTCTGCCTGTGCACAGTCTGTCC ACGAGTACCTGAGGGGAGAACCATTCCACGAATATCTGGACAGCATGTTTTTTGACCGCTTTCTCCAGTGGAAGT GGTTGGAAAGGCAACCGGTGACCAAAAACACTTTCAGGCAGTATCGAGTGCTAGGAAAAGGGGGGCTTCGGGGAGG TCTGTGCCTGCCAGGTTCGGGCCACGGGTAAAATGTATGCCTGCAAGCGCTTGGAGAAGAAGAGAGATCAAAAAAGA CCTATGCCTACGAGACCAAGGATGCACTGTGCTTGGTCCTGACCATCATGAATGGGGGTGACCTGAAGTTCCAĆA TCTACAACATGGGCAACCCTGGCTTCGAGGAGGAGCCGGCCTTGTTTTATGCGGCAGAGATCCTCTGCGGCTTAG AAGACCTCCACCGTGAGAACACCGTCTACCGAGATCTGAAAACCTGAAAACATCCTGTTAGATGATTATGGCCACA TTAGGATCTCAGACCTGGGCTTGGCTGTGAAGATCCCCGAGGGAGACCTGATCCGCGGCCGGGTGGGCACTGTTG GCTACATGGCTCCAGAGGTCCTGAACAACCAGAGGTACGGCCTGAGCCCCGACTACTGGGGCCTTGGCTGCCTCA TCTATGAGATGATCGAGGGCCAGTCGCCGTTCCGCGGCCGCAAGGAGAAGGTGAAGCGGGAGGAGGTGGACCGCC GGGTCCTGGAGACGGAGGAGGTGTACTCCCACAAGTTCTCCGAGGAGGCCAAGTCCATCTGCAAGATGCTGCTCA  ${\tt AGGACGTGCTGGACATCGAGCAGTTCTCCACTGTGAAGGGCGTCAATCTGGACCACAGACGACGACTTCTACT}$ CCAAGTTCTCCACGGGCTCTGTGTCCATCCCATGGCAAAACGAGATGATAGAAACAGAATGCTTTAAGGAGCTGA ACGTGTTTGGACCTAATGGTACCCTCCCGCCAGATCTGAACAGAAACCACCCTCCGGAACCGCCCAAGAAAGGGC TGCTCCAGAGACTCTTCAAGCGGCAGCATCAGAACAATTCCAAGAGTTCGCCCAGCTCCAAGACCAGTTTTAACC ACCACATAAACTCAAACCATGTCAGCTCGAACTCCACCGGAAGCAGCTAGTTTCGGCTCTGGCCTCCAAGTCCAC AGTGGAACCAGCCCAGACCCTTCTCCTTAGAAGTGGAAGTAGTGGAGCCCCTGCTCTGGTGGGGCTGCCAGGGGA GACCCCGGGAGCCGGGGAAGGAGGCCGTCCATCCCGTCGACGTAGAACCTCGAGGTTTCTCAAAGAAATTTCCAC  ${\tt TCAGGTCTGTTTTCCGAGGCGGCCCGGCCGGGGTGGATTGGATTTGTCTTTGGTGAACATTGCAATAGAAATCC}$ AATTGGATACGACAACTTGCACGTATTTTAATAGCGTCATAACTAGAACTGAATTTTGTCTTTATGATTTTTAAA GAAAAGTTTTGTAAATTTCTCTACTGTCTCAGTTTACATTTTGTATATTTGTATTTAAATGAAAGTGAGACTTTG AGGGTGTATATTTTCTGTGCAGCCACTGTTAAGCCATGTGTTCCAAGGCATTTTAGCGGGGAGGGGGGTTATCAAA AAAAAAAAATGTGACTCAAGACTTCCAGAGCCTCAAATGAGAAAATGTCTTTATTAAATGTAGAAAGTGATCCA TACTTC

 $\texttt{GCGTGATCGGTTTCCGGTCAGTGGTGGTACCGGGTACCCGGAGACGTGTATCGGACGGTGGGCCGCAGCC} \underline{\textbf{ATG}}$ 

TCGGCCACGGAGTTCAGCTTCAATGTGCCCTTCATCCCAGTCACCCAGGCCTCCGCTTCTCCGGCCTCCCTGCTC TTACCGGGAGAGGATTCCACAGATGTTGGTGAGGAGGACAGCTTCCTTGGTCAGACTTCTATTCACACATCTGCC CCACAGACATTTAGTTACTTCTCTCAGGTATCAAGCAGCAGTGATCCTTTTGGGAATATTGGACAGTCACCATTA ACAACTGCAGCAACCTCAGTTGGACAATCAGGATTCCCCAAGCCCCTGACTGCTCTCCCTTTTACAACTGGATCC CAAGATGTCTCGAATGCATTTTCACCATCCATTTCGAAGGCTCAACCTGGTGCTCCACCTTCCTCACTGATGGGA CAACCAGGATACAATCCATATCGCCATACCCCTGGCAGCAGCAGGGCTAATCCTTACATTGCACCACCCCAGCTG CAGCAGTGCCAAACACCAGGCCCTCCTGCTCATCCTCCACCTTCTGGACCCCCTGTTCAGATGTACCAGATGCCT CCAGGATCTTTGCCACCGGTTCCTTCTTCAGTGCAGTCACCGGCACAGCAGCAGCAGCTACCTGCCAGACCTGGGGCT CCCTCTGTTCAAGTGCCATCTCCTTTTCTACTTCAAAACCAATATGAGCCTGTTCAGCCCCACTGGTTTTACTGC AAGGAGGTAGAATACAAACAACTGTGGATGCCTTTTAGTGTGTTCGACTCTTTGAATCTTGAAGAAATCTATAAT TCAGTTCAGCCAGATCCGGAGAGCGTGGTTCTTGGCACGGATGGAGGGCGCTACGATGTTTACCTCTATGACCGA ATAAGGAAGGCTGCCTACTGGGAAGAGGAGCCAGCCGAAGTGAGACGCTGTACTTGGTTTTACAAGGGGGACACA GATAGTCGATTTATTCCCTATACTGAGGAGTTCAGTGAAAAACTAGAGGCTGAATATAAAAAAGCTGTAACCACT AATCAGTGGCACCGAAGATTAGAGTTTCCAAGTGGAGAGACAATTGTTATGCACAATCCAAAGGTTATTGTTCAG TTCCAGCCCTCCTCAGTGCCAGATGAATGGGGCACCACGCAAGATGGACAAGACAAGGCCCAGGGTTGTAAAGCGT GGAATTGATGATAACCTTGATGAAATTCCCGACGGGGAGATGCCTCAAGTTGACCATTTGGTGTTTGTGGTGCAT GGCATTGGACCTGTGTGTGACTTACGCTTTAGGAGCATTATTGAGTGTGTGGATGATTTTAGGGTGGTTTCTCTC TGGCATAGTTCTTTGGGTGGGGACGCCACAGGTGTGGACAGGAATATTAAGAAAATCACTTTGCCAAGTATTGGT CGATTTCGTCACTTTACCAATGAAACTTTGCTAGATATTTTATTTTATAACAGCCCCACCTACTGTCAGACAATT GTGGAAAAGTAGGAATGGAGATAAACCATCTGCATGCACTCTTTATGAGTCGGAACCCAGACTTCAAAGGAGGT GTCTCTGTTGCTGGTCACAGTTTAGGTTCTTTAATATTGTTTGACATCCTGTCTAATCAAAAAGATTTGAATTTA TCAAAGTGCCCTGGACCTCTTGCTGTTGCTAATGGAGTTGTGAAGCAGCTACATTTTCAGGAAAAGCAGATGCCT GAAGAGCCAAAGCTGACTTTGGATGAGTCGTATGACCTTGTTGTTGAAAATAAAGAAGTCCTAACTTTGCAAGAA ACTCTGGAAGCACTTAGCCTCTCTGAATATTTTAGCACTTTTGAAAAGGAAAAGATTGATATGGAGTCCCTGCTT CATAAAGCAGCCAAACTGAAAAAAGCAGCGTCAGAAAAGAAGGCAGTGGCGGCCACTTCTACAAAAAGGACAAGAG CAAAGTGCCCAGAAGACTAAAGACATGGCTTCCCTCCCCTCAGAATCCAATGAGCCAAAGAGGAAACTTCCAGTT GGTGCTTGCGTGTCTTCTGTGTGTGAATTATGAATCTTTTGAAGTTGGCGCCGGACAGGTTTCTGTTGCTTAC AACTCATTAGATTTTGAACCAGAGATATTCTTTGCCTTGGGGTCTCCAATTGCTATGTTTCTCACTATTCGAGGA GTTGATAGGATAGATGAGAATTACAGCCTTCCTACCTGTAAAGGGTTCTTCAATATTTATCATCCGCTTGATCCA GTGGCATATAGATTAGAACCTATGATTGTTCCAGATTTGGACCTAAAAGCTGTTCTCATTCCACATCACAAAGGC TCTCTCAAAAGTGCTTGGCAGACATTAAATGAGTTTGCCCGTGCTCATACGTCTTCAACCCAGTTGCAAGAAGAA TTGGAGAAGGTGGCCAATCAGATCAAAGAAGAAGAAGAAGAAGAAGCAAGTAGTTGAAGCAGAAAAGGTTGTTGAAAGT CCAGATTTTTCCAAGGATGAGGACTACTTAGGAAAGGTTGGAATGTTAAATGGAGGCCGCCGAATTGACTACGTT CTCCAAGAAAACCAATAGAGAGTTTTAATGAATACCTTTTCGCTCTTCAGAGTCACTTATGCTATTGGGAATCT GAAGATACTGCTCTGTTACTACTTAAAGAAATTTATCGAACAATGAACATTAGTCCAGAACAGCCCCAGCAT**TGA** TCAAACTTCAGTT

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SEDTALLLLKEIYRTMNISPEQPQH

MTNTKGKRRGTRYMFSRPFRKHGVVPLATYMRIYKKGDIVDIKGMGTVQKGMPHKCYHGKTGRVYNVTQHAVGIV VNKQVKGKILAKRINVRIEHIKHSKSRDSFLKRVKENDQKKKEAKEKGTWVQLKRQPAPPREAHFVRTNGKEPEL LEPIPYEFMA

GAAGCAAGGAGGCGGCGGCGGGCGAGCGAGTGGCGAGTAGTGGAAACGTTGCTTCTGAGGGGAGCCCAAG<u>ATG</u>AC CGGTTCTAACGAGTTCAAGCTGAACCAGCCACCGAGGATGGCATCTCCTCCGTGAAGTTCAGCCCCAACACCTC GTACCAGCACCCGGCGCCGTCCTGGACTGCGCCTTCTACGATCCAACGCATGCCTGGAGTGGAGGACTAGATCA TCAATTGAAAATGCATGATTTGAACACTGATCAAGAAAATCTTGTTGGGACCCATGATGCCCCTATCAGATGTGT TGAATACTGTCCAGAAGTGAATGTGATGGTCACTGGAAGTTGGGATCAGACAGTTAAACTGTGGGATCCCAGAAC TCCTTGTAATGCTGGGACCTTCTCTCAGCCTGAAAAGGTATATACCCTCTCAGTGTCTGGAGACCGGCTGATTGT GGGAACAGCAGGCCGCAGAGTGTTGGTGTGGGACTTACGGAACATGGGTTACGTGCAGCAGCGCAGGGAGTCCAG CCTGAAATACCAGACTCGCTGCATACGAGCGTTTCCAAACAAGCAGGGTTATGTATTAAGCTCTATTGAAGGCCG AGTGGCAGTTGAGTATTTGGACCCAAGCCCTGAGGTACAGAAGAAGAAGTATGCCTTCAAATGTCACAGACTAAA AGAAAATAATATTGAGCAGATTTACCCAGTCAATGCCATTTCTTTTCACAATATCCACAATACATTTGCCACAGG TGGTTCTGATGGCTTTGTAAATATTTTGGGATCCATTTAACAAAAAGCGACTGTGCCAATTCCATCGGTACCCCAC TGACACAGAACATCCTGAAGATGGTATCTTCATTCGCCAAGTGACAGATGCAGAAACAAAACCCAAGTCACCATG TACT**TGA**CAAGATTTCATTTACTTAAGTGCCATGTTGATGATAATAAAACAATTCGTACTCCCCAATGGTGGATT TTGAATTTTTTTTTTAAATAAACACCTTCTTAAGTGCATGAGATGGTTTGATGGTTTGCTGCATTAAAGGTATT AAAAGGCTCGTGAGCCATTTGTTTCTTTTGCTGGTTATAGTTGCTAATTCTAAAGCTGCTTCAGACTGCTTCATG AGGAGGTTAATCTACAATTAAACAATATTTCCTCTTGGCCGTCCATTATTTTCTGAAGCAGATGGTTCATCATTT CCTGGGCTGTTAAACAAAGCGAGGTTAAGGTTAGACTCTTGGGAATCAGCTAGTTTTCAATCTTATTAGGGTGCA CCCAGAAGGGCAAATTGTTTGAGTCAGTAATGAGCTGAGAAAAGACAGAGCATATCTGTGTATTTGGAAAAATAA TTGTAACGTAATTGCAGTGCATTTAGACAGGCATCTATTTGGACCTGTTTCTATCTCTAAATGAATTTTTGGAAA CATTAATGAGGTTTACATATTTCTCTGACATTTATATAGTTCTTATGTCCATTTCAGTTGACCAGCCGCTGGTGA TTAAAGTTAAAAAGAAAAAAATTATAGTGAGAATGAGATTCATTTCAATGTAATGCACTAAAGCAGAACACGAAC TTAGCTTGGCCTATTCTAGGTAGTTCCAAATAGTATTTTTGTTGTCAAACTTTAAAATTTATATTAATTTGCAAA ATACAGAGAAGGGTCTTTTTTTTTTTAAGTATTTCAGTGAAAACTTGGTGTAAGTCTGAACCCATCTTTTGAAAT ACAAATACATGCTTATTCCTTAAGGGATGTGTTAGAGTTACTGTGGATTTCTCTGTTTTTCTGTCTTACAAGAAAC TTGTCTATGTACCTTAATACTTTGTTTAGGATGAGGAGTCTTTGTGTCCCTGTACAGTAGTCTGACGTATTTCCC CTTCTGTCCCCTAGTAAGCCCAGTTGCTGTATCTGAACAGTTTGAGCTCTTTTTGTAATATACTCTAAACCTGTT 

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GGCGGA<u>ATG</u>GAGACGCGGACCGAGGACGGGGGCCTCACCCGCCGCCCCACGCTGGCCTCTTCTTGGGATGTTGCA GGCGGGGCCCTGACCCACAGCCTCCTCCACCCGGGCCGGTCTCGGCCCCGGTGACTTCGACTGGGAGGAGCTG CTGGCACCGCCTGCTCCAGGTCAGGATCTGGTGATTTTGAAGAGAAACCACAACGACAAAGATGAAAACCCCTGC TTCCTTTACCTGAGGTGTGGCCCTGATGGAGGTGAAGAAATCGCTTCTATTGGCATTTTAAGTTCAGCAAGAAAT ATGGAAGTGTACTTAGGAGAGGAGTACTGTGGAACCAGTAGGGGCAAGAATGTTTGTACTGTCCTGGATGACAGT GAACATGAAAAGATCATTTTGTATAAAAAAAATCTAAAATTGGAGTCCTCCACACATGCTTGTAAAATAAAGTTG CTCTCCTTTGGCGAAAGGCAGTGTGTTCATCAGTAAAGTTGTGGTACACATGAGATCAGTTTTTGCAAATTCT TCAACAAGCTCTCCTGCTCTAGGATCAAGGATAGACCTTGACAAGGTCCAAACCATAATGGAGTCCATGGGGTCA AAGTTATCTCCTGGAGCTCAGCAGTTGATGGATATGGTTAGGTGTCAGCAGCGGAATTGTATTCCCATTGGAGAG CAGCTTCAGTCGGTGTTGGGCAATTCTGGATACAAGCATATGATTGGACTACAATCCTCATCTACCTTAGGAACC TTAAACAAGTCGTCCTCCACACCTTTTCCTTTTAGAACTGGATTGACATCTGGGAACGTGACTGAAAACTTACAA ACTTACATTGATAAAAGTACACAACTGCCTGGTGGAGAGAATTCTACCAAGCTTGATGAGTGTAAAGTTATGCCT TCAAATATACCCAACTCCGAGTTGCTGCCTTTTCTCCAGAATTTATGTAGTCAAGTTAATCATCTCCATGTGGGA AATAAGACCGAGTGTCAGGAAAACATCACCAAGCATGGTGAACGCATTCTTGGTGTTGGAATGGAAGAGCAATCT ATTIGCTCCTACTTGGAAAAGATTCTTTCTAAAAATATGGAACTGATGGAAAAGAAACTTATGGATTACATTGAT CAGCGAATACATGAACTCCAGGAGCACATTGATGATAAGATTGCTTTGTTACTGGATTTGCTGCAAAATCCTAAC  ${\tt TCCCCGCCCACTGGGATACCTCTAAGACATTATGACTCTGGAGAAAGACTTTCAAATGGAGAAAGA{\tt TAAGCTCTC}$ AAGTATTTAATGTCCTTTGAGGGATCATTGTCTTACACAAAGTGACCTCAGTTTTCGTTTTTACTACACTTGTTA TTTTAAATCCAGTACTGTACACTGAGTTAATATGATACAGTCAAATTATTTTTGCTCACGATATTTTTCAGTCTT ACAGAAATGTATGTATATTTGTGTTAAGAGTTTAAAATGCTTGAGGATTTCTAATACAGTTCATTAGTTTGTATT AGTATTTGATTTTTTTCTTTTCTAATTATCTTGGAAAATTGGATACTTAAGACTTGGAGCCTTTACTTCAGATT ACCAGTTTACATTTTGTATTGCTTGTGTGAGATAATGAATAAGATGTGATATTTGGCATGTGTAAACTTAGTTCA CTCTGGGGTTGTTAATATTATTTĆTTTCATTACAGAGTAGCTGTAGGTAGGAAAGTAAACATCAGAACTAGCCTA GTCCTTGTTACGATTAGTACTTTGGATTTGATTTTTCCTGTAAAACAGATGCAGTCATCTTGTTTGACCTCAGTA ACCCCAGACAGTTTAAGAAAACCTCTCCTTTTGAGCTGATACAGGTTTTTTCCCCAGAATCCTTTTCTGGCATGT TTATTGTATGAAATAATGAGGCTCTCCATGGAAGGATGAACACATATGAGTCAAGGGATTGCAATTCTCTCTGAT AGACTTAGTTTTCAGACCTTATAACTATTGTATATGCATTGAAGGGTGATATATTTGCATATAAAAAATAAACGCA CCTGCTCTGGG

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QQSLELKRKMLRDKQNKKNSGQHLPIFPAWVYERPALIGDFLIGAGISTDTALPIGTLPLASQESAVVEDLLYVL
VGVDGRYVSAQPLAGRQSRTFLVDPNLDLSIRELVHRILPVAASYSAVTRFIEEKSSFEYGQVNHALAAAMRTLV
KEHLILVSQLEQLHRQGLLSLQKLWFYIQPAMRTMDILASLATSVDKGECLGGSTLSLLHDRSFSYTGDSQAQEL
CLYLTKAASAPYFEVLEKWIYRGIIHDPYSEFMVEEHELRKERIQEDYNDKYWDQRYTIVQQQIPSFLQKMADKI
LSTGKYLNVVRECGHDVTCPVAKEIIYTLKERAYVEQIEKAFNYASKVLLDFLMEEKELVAHLRSIKRYFLMDQG
DFFVHFMDLAEEELRKPVEDITPPRLEALLELALRMSTANTDPFKDDLKIDLMPHDLITQLLRVLAIETKQEKAM
AHADPTELALSGLEAFSFDYIVKWPLSLIINRKALTRYQMLFRHMFYCKHVERQLCSVWISNKTAKQHSLHSAQW
FAGAFTLRQRMLNFVQNIQYYMMFEVMEPTWHILEKNLKSASNIDDVLGHHTGFLDTCLKDCMLTNPELLKVFSK
LMSVCVMFTNCMQKFTQSMKLDGELGGQTLEHSTVLGLPAGAEERARKELARKHLAEHADTVQLVSGFEATINKF
DKNFSAHLLDLLARLSIYSTSDCEHGMASVISRLDFNGFYTERLERLSAERSQKATPQVPVLRGPPAPAPRVAVT

TGGGCCCTCATGGAGCAGTATGAGGTCGTGTTGCCGTGGCGTCTGCCAGGCCCCGAGTCCGCCGAGCTCTGCCC TCCCACTTGGGCCTGCACCCAGAGAGGGTGAGCTACGTCCTTGGGGCCACAGGGCACAACTTCACCCTCCACCTG CGGAAGAACAGGGACCTGCTGGGCTCCGGCTACACAGAGACCTATACGGCTGCCAATGGCTCCGAGGTGACGGAG CAGCCTCGCGGGCAGGACCACTGCTTCTACCAGGGCCACGTAGAGGGGTACCCGGACTCAGCCGAGCCTCAGC ACCTGTGCCGGCCTCAGGGGTTTCTTCCAGGTGGGGTCAGACCTGCACCTGATCGAGCCCCTGGATGAAGGTGGC GAGGGCGGACGCCACGCCGTGTACCAGGCTGAGCACCTGCTGCAGACGGCCGGGACCTGCGGGGTCAGCGACGAC AGCCTGGGCAGCCTCCTGGGACCCCGGACGGCAGCCGTCTTCAGGCCTCGGCCCGGGGACTCTCTGCCATCCCGA GAGACCCGCTACGTGGAGCTGTATGTGGTCGTGGACAATGCAGAGTTCCAGATGCTGGGGAGCGAAGCAGCCGTG CGTCATCGGGTGCTGGAGGTGGTGAATCACGTGGACAAGCTATATCAGAAACTCAACTTCCGTGTGGTCCTGGTG GGCCTGGAGATTTGGAATAGTCAGGACAGGTTCCACGTCAGCCCCGACCCCAGTGTCACACTGGAGAACCTCCTG ACCTGGCAGGCACGGCACCGGCGCCACCTGCATGACAACGTACAGCTCATCACGGGTGTCGACTTCACC GTCCAGGGCTGCCGCGAGGAACGCTTCGAGGCCGGCCGCTGCATCATGGCGGGCAGCATTGGCTCCAGTTTC CCCAGGATGTTCAGTGACTGCAGCCAGGCCTACCTGGAGAGCTTTTTGGAGCGGCCGCAGTCGGTGTGCCTCGCC AACGCCCCTGACCTCAGCCACCTGGTGGGCCCCCGTGTGTGGGGAACCTGTTTGTGGAGCGTGGGGAGCAGTGC TGTGCGCACGGTACCTGCCAGGAGTGCAAGGTGAAGCCGGCTGGTGAGCTGTGCCGTCCCAAGAAGGACATG TGTGACCTCGAGGAGTTCTGTGACGGCCGGCACCCTGAGTGCCCGGAAGACGCCTTCCAGGAGAACGGCACGCCC TGCTCCGGGGGCTACTGCTACAACGGGGCCTGTCCCACACTGGCCCAGCAGTGCCAGGCCTTCTGGGGGCCAGGT GGGCAGGCTGCCGAGGAGTCCTGCTTCTCCTATGACATCCTACCAGGCTGCAAGGCCAGCCGGTACAGGCTGAC ATGTGTGGCGTTCTGCAGTGCAAGGGTGGGCAGCAGCCCCTGGGGCGTGCCATCTGCATCGTGGATGTGTGCCAC GCGCTCACCACAGAGGATGGCACTGCGTATGAACCAGTGCCCGAGGGCACCCGGTGTGGACCAGAGAAGGTTTGC TGGAAAGGACGTTGCCAGGACTTACACGTTTACAGATCCAGCAACTGCTCTGCCCAGTGCCACAACCATGGGGTG CACGCAGCGTCCGGGAGCCTCCCCGTCTTCGTGGTGGTGGTTCTGGTGCTCCTGGCAGTTGTGCTGGTCACCCTG GCAGGCATCATCGTCTACCGCAAAGCCCGGAGCCGCATCCTGAGCAGGAACGTGGCTCCCAAGACCACAATGGGG CGCTCCAACCCCTGTTCCACCAGGCTGCCAGCCGCGTGCCGGCCAAGGGCCGGGCTCCAGCCCCATCCAGGGGC CCCCAAGAGCTGGTCCCCACCCACCCGGGCCAGCCCGGCCGACACCCGGCCTCCTCGGTGGCTCTGAAGAGG CAGGTCATCAAGCCAACGTTCGCACCCCCAGTGCCCCCAGTCAAACCCGGGGCTGGTGCGGCCAACCCTGGTCCA GCTGAGGGTGCTGTTGGCCCAAAGGTTGCCCTGAAGCCCCCCATCCAGAGGAAGCAAGGAGCCGAGCTCCCACAG  $\tt CACCCTAGGGGGGCACCTGCGCCTGTGGGAAATTTGGAGAAGTTGCGGCAGAGAAGCCATGCGTTCCAGCATTC$ CACGGTCCAGCTAGTGCCGCTCAGCCCTAGACCCTGACTTTGCAGGCTCAGCTGCTGTTCTAACCTCAGGAATGC ATCTACCTGAGAGGCTCCTGCTGTCCACGCCCTCAGCCAATTCCTTCTCCCCGCCTTGGCCACGTGTAGCCCCAG CTGGTCTCCCGCTGTGTTCAGGAGGCCACATATACAGCCCCTCCCAGCCACACCTGCCCCTGCTCTGGGGCCTGC TGAGCCGGCTGCCCTGGGCACCCGGTTCCAGGCAGCACAGACGTGGGGCATCCCCAGAAAGACTCCATCCCAGGA CCAGGTTCCCCTGCGTGCTCTTCGAGAGGGTGTCAGTGAGCAGACTGCACCCCAAGCTCCCGACTCCAGGTCCCC CCTTTATGGAAAGGGCTATGTGGGAGAGTCAGCTATCTTGTCTGGTTTTCTTGAGACCTCAGATGTGTGTTCAGC AGGGCTGAAAGCTTTTATTCTTTAATAATGAGAAATGTATATTTTACTAATAAATTATTGACCGAGTTCTGTAGA **TTCTTGTTAGA** 

# 3370/6881 FIGURE 3105

 ${\tt MGQNVADYMCYLMQEDEDAYKKQFSQYIKNSVTPDMRDKKAHAALQENPGYEKKPKKEVRKKRQNRPKMAFAQKK} \\ {\tt VRVAQRRQASLELRSC}$ 

 ${\tt MADWARAQSPGAVEEILDRENKRMADSLASKVTRLKSLALDIDRDAEDQNRYLDGMDSDFTSMTSLLTGSVKRFS} \\ {\tt TMARSGQDNRKLLCGMAVGLIVAFFILSYFLSRART}$ 

GGGCGGTTGCAGAAGCCGTGGAGACGGGTGAGGAGGATGTGATTATGGAAGCTCTGCGGTCATACAACCAGGAGC ACTCCCAGAGCTTCACGTTTGATGATGCCCAACAGGAGGACCGGAAGAGACTGGCGGAGCTGCTGGTCTCCGTCC TGGAACAGGGCTTGCCACCCTCCCACCGTGTCATCTGGCTGCAGAGTGTCCGGAATCCTGTCCCGGGACCGCAACT GCCTGGACCCGTTCACCAGCCGCCAGAGCCTGCAGGCACTAGCCTGCTGTGTGACATCTCTGTCTCTGAGGGGT CCGTCCCAGAGTCCGCAGACATGGATGTTGTACTGGAGTCCCTCAAGTGCCTGTGCAACCTCGTGCTCAGCAGCC CTGTGGCACAGATGCTGGCAGAGGCCCGCCTAGTGGTGAAGCTCACAGAGCCTGTGGGGCTGTACCGTGAGA GGAGCTTCCCCCACGATGTCCAGTTCTTTGACTTGCGGCTCCTCTTCCTGCTAACGGCACTCCGCACCGATGTGC GCCAGCAGCTGTTTCAGGAGCTGAAAGGAGTGCGCCTGCTAACTGACACACTGGAGCTGACGCTGGGGGTGACTC CTGAAGGGAACCCCCACCCACGCTCCTTCCTTCCCAAGAGACTGAGCGGGCCATGGAGATCCTCAAAGTGCTCT TCAACATCACCCTGGACTCCATCAAGGGGGAGGTGGACGAGGAAGACGCTGCCCTTTACCGACACCTGGGGACCC TTCTCCGGCACTGTGTGATGATCGCTACTGCTGGAGACCGCACAGAGGAGTTCCACGGCCACGCAGTGAACCTCC TGGGGAACTTGCCCCTCAAGTGTCTGGATGTTCTCCTCACCCTGGAGCCACATGGAGACTCCACGGAGTTCATGG GAGTGAATATGGATGTGATTCGTGCCCTCCTCATCTTCCTAGAGAAGCGTTTGCACAAGACACACAGGCTGAAGG CCCAGGTGCTGCCCCTCTGCGGGATGTGAGGACACGGCCTGAGGTTGGGGAGATGCTGCGGAACAAGCTTGTCC TGCCCCGATTCATCAAGTACACAGGCTATGGGAATGCTGCTGGCCTTCTGGCTGCCAGGGGCCTCATGGCAGGAG GCCGGCCCGAGGGCCAGTACTCAGAGGATGAGGACACAGACACAGATGAGTACAAGGCAGACCCAGCATAA ACCCTGTGACCGGGAGGGTGGAGGAGAAGCCGCCTAACCCTATGGAGGGCATGACAGAGGAGCAGAAGGAGCACA AGGCCATGAAGCTGGTGACCATGTTTGACAAGCTCTCCAGGAACAGAGTCATCCAGCCAATGGGGATGAGTCCCC GGGGTCATCTTACGTCCCTGCAGGATGCCATGTGCGAGACTATGGAGCAGCAGCTCTCCTCGGACCCTGACTCGG ACCCTGAC<u>TGA</u>GGATGGCAGCTCTTCTGCTCCCCCATCAGGACTGCTGCTTCCCAGAGACTTCCTTGGGGTTG CAACCTCGGGAAGCCACATCCCACTGGATCCACACCCGCCCCCACTTCTCCATCTTAGAAACCCCTTCTCTTGAC TCCCGTTCTGTTCATGATTTGCCTCTGGTCCAGTTTCTCATCTCTGGACTGCAACGGTCTTCTTGTGCTAGAACT GCCTGAGGGCAGGGCCTACCTGGGCACACAGAAGAGCATATGGGAGGGCAGGGGTTTGGGTGTGGGTGCACACAA AGCAAGCACCATCTGGGATTGGCACACTGGCAGAGCCAGTGTGTTGGGGTATGTGCTGCACTTCCCAGGGAGAAA GTCTTCACTGAGCGCAGGGCTGGAGGCCTCTTAGACATTCTCCTTGGTCCTCGTTCAGCTGCCCACTGTAGTATC AAAATGCCCCTCGTGTGACCATAGATTGAGATTTATACCACATACCACATAGCCACAGAAACATCATCTTGAA 

### 3375/6881 FIGURE 3110

MEPRAVAEAVETGEEDVIMEALRSYNQEHSQSFTFDDAQQEDRKRLAELLVSVLEQGLPPSHRVIWLQSVRILSR DRNCLDFFTSRQSLQALACYADISVSEGSVPESADMDVVLESLKCLCNLVLSSPVAQMLAAEARLVVKLTERVGL YRERSFPHDVQFFDLRLLFLLTALRTDVRQQLFQELKGVRLLTDTLELTLGVTPEGNPPPTLLPSQETERAMEIL KVLFNITLDSIKGEVDEEDAALYRHLGTLLRHCVMIATAGDRTEEFHGHAVNLLGNLPLKCLDVLLTLEPHGDST EFMGVNMDVIRALLIFLEKRLHKTHRLKESVAPVLSVLTECARMHRPARKFLKAQVLPPLRDVRTRPEVGEMLRN KLVRLMTHLDTDVKRVAAEFLFVLCSESVPRFIKYTGYGNAAGLLAARGLMAGGRPEGQYSEDEDTDTDEYKEAK ASINPVTGRVEEKPPNPMEGMTEEQKEHEAMKLVTMFDKLSRNRVIQPMGMSPRGHLTSLQDAMCETMEQQLSSD PDSDPD

GACGTACCGGGCTTCCTACAGCAGAGCCAGAGCTCCGGGCCCGGGCAGCCCGCTGTGTGGCACCGTCTGGAGGAG CTCTACACGAAGAAGTTGTGGCATCAGCTGACACTTCAGGTGCTTGATTTTGTGCAGGATCCGTGCTTTGCCCAA GGAGATGGTCTCATTAAGCTTTATGAAAACTTTATCAGTGAATTTGAACACAGGGTGAATCCTCTGTCCCTCGTG GAAATCATTCTTCACGTAGTTAGACAGATGACTGATCCTAATGTGGCTCTTACTTTTCTGGAAAAGACTCGTGAG AAGGTGAAAAGTAGTGATGAGGCAGTGATCCTGTGTAAAACAGCAATTGGAGCTCTAAAATTAAACATCGGGGAC CTACAGGTTACAAAGGAAACAATTGAAGATGTTGAAGAAATGCTCAACAACCTTCCTGGTGTGACATCGGTTCAC AGTCGTTTCTATGATCTCTCCAGTAAATACTATCAAACAATCGGAAACCACGCGTCCTACTACAAAGATGCTCTG CGGTTTTTGGGCTGTTGACATCAAGGATCTACCAGTGTCTGAGCAGCAGGAGAGAGCCTTCACGCTGGGGCTA GCAGGACTTCTCGGCGAGGGAGTTTTTAACTTTGGAGAACTCCTCATGCACCCTGTGCTGGAGTCCCTGAGGAAT ACTGACCGGCAGTGGCTGATTGACACCCTCTATGCCTTCAACAGTGGCAACGTAGAGCGGTTCCAGACTCTGAAG ACTGCCTGGGGCCAGCAGCCTGATTTAGCAGCTAATGAAGCCCAGCTTCTGAGGAAAATTCAGTTGTTGTGCCTC ATGGAGATGACTTTCACACGACCTGCCAATCACAGACAACTCACTTTTGAAGAAATTGCCAAAAGTGCTAAAATC ACAGTGAATGAGGTGGAGCTTCTGGTGATGAAGGCCCTTTCGGTGGGGCTGGTGAAAGGCAGTATAGACGAGGTG GACAAACGAGTCCACATGACCTGGGTGCAGCCCCGAGTGTTGGATTTGCAACAGATCAAGGGAATGAAGGACCGC  $\tt CTGGAGTTCTGGTGCACGGATGTGAAGAGCATGGAGATGCTGGTGGAGCACCAGGCCCATGACATCCTCACC{\color{red}{TAG}}$ 

## 3377/6881 FIGURE 3112

MKDVPGFLQQSQSSGPGQPAVWHRLEELYTKKLWHQLTLQVLDFVQDPCFAQGDGLIKLYENFISEFEHRVNPLS
LVEIILHVVRQMTDPNVALTFLEKTREKVKSSDEAVILCKTAIGALKLNIGDLQVTKETIEDVEEMLNNLPGVTS
VHSRFYDLSSKYYQTIGNHASYYKDALRFLGCVDIKDLPVSEQQERAFTLGLAGLLGEGVFNFGELLMHPVLESL
RNTDRQWLIDTLYAFNSGNVERFQTLKTAWGQQPDLAANEAQLLRKIQLLCLMEMTFTRPANHRQLTFEEIAKSA
KITVNEVELLVMKALSVGLVKGSIDEVDKRVHMTWVQPRVLDLQQIKGMKDRLEFWCTDVKSMEMLVEHQAHDIL

# 3379/6881 FIGURE 3114

 ${\tt MNHIVQTFSPVNSGQPPNYEMLKEEQEVAMLGGPHNPAPPTSTVIHIRSETSVPDHVVWSLFNTLFMNTCCLGFIAFAYSVKSRDRKMVGDVTGAQAYASTAKCLNIWALILGIFMTILLVIIPVLVVQAQR}$ 

#### 3380/6881 FIGURE 3115

GCCAGCACCCTGTGGGGCCCAGACTACAGGCTGATGGCGGAGGCTTCGAGTGACCCGGGTGCTGAGGAGCGGGAA GAGTTGCTGGGGCCCACTGCTCAGTGGAGCGTGGAGGACGAGGAGGAGGCCGTCCACGAGCAATGCCAGCATGAG AGAGACAGCAGCTTCAGGCCCAGGACGAGGAGGAGGGGGCGCCATGTCCCCGAGCGGCCGAAGCAGGAGATGCTC CTCAGCCTGAAGCCCTCGGAGGCCCCTGAACTGGATGAGGACGAGGGCTTTGGCGACTGGTCCCAGAGGCCAGAG CAGCGGCAGCAGCACGAGGGGGCGCAGGGCGCCTTGGACAGCAGAGAGCCCCCCCAGTGCAGGAGTCCTGAGGGG GAGCAAGAGGACAGGCCCGGCCTGCATGCCTACGAAAAGGACGACAGTGATGAAGTCCACCTGGAGGAGTTGAGT CTGAGCAAGGAGGGCCAGGCCCAGAGGACACTGTCCAGGACAACCTGGGGGCCGCAGGGGCTGAGGAGGAACAG GAGGAGCACCAGAAATGTCAGCAGCCCAGGACACCCAGCCCCTTGGTCTTGGAGGGGACCATCGAACAGAGCTCG CCTCCCTGAGCCCTACCACCAAACTCATCGACAGGACCGAGTCCCTAAACCGCTCCATAGAGAAGAGTAACAGT GTGAAGAAATCCCAGCCAGACTTGCCCATCTCCAAGATTGATCAGTGGCTGGAACAATACACCCAGGCCATCGAG ACCGCTGGCCGGACCCCAAGCTAGCCCGCCAGGCCTCCATAGAGCTGCCCAGCATGGCTGTGGCCAGTACCAAG AGTCGGTGGGAGACGGGTGAGGTACAGGCTCAGTCTGCGGCCAAGACTCCGTCCTGCAAGGATATTGTGGCTGGA GACATGAGCAAGAAAAGCCTCTGGGAGCAGAAGGGAGGCTCCAAGACCTCATCAACAATTAAGAGCACCCCATCT GGGAAGAGGTATAAGTTTGTGGCCACCGGGCATGGGAAGTATGAGAAGGTGCTTGTGGAAGGGGGCCCGGCTCCC TAGGCGTCCCATCTCGCTTCCTGGGTCTGCAGGTCCAGCCGGCTGGCACCCTCCATGTACCCAGGGGAGATTCCA GCCAGACACCCGCCCCCGGCCCTGGCTAAGAAGTTGCTTCCTGTTGCCAGCATGACCTACCCTCGCCTCTTTGA TGCCATCCGCTGCCACCTCTTTTGCTCCTGGACCCTTTAGCCTCTCTGCCCTTCCACTCTCTGACCACCGCCCC CCCCCAGATCCAAGGGGAAACTGCAGGTCAAGGGCTGATAACGGCCATGCAGGATGCTTGATGCTGCGTCCCCG CTGCTTGCCGCCCCCCCCCCCCTTTTTGTATAAAGCTCCCTGTGTATTCTC

MAEASSDPGAEEREELLGPTAQWSVEDEEEAVHEQCQHERDRQLQAQDEEGGGHVPERPKQEMLLSLKPSEAPEL DEDEGFGDWSQRPEQRQQHEGAQGALDSGEPPQCRSPEGEQEDRPGLHAYEKEDSDEVHLEELSLSKEGPGPEDT VQDNLGAAGAEEEQEEHQKCQQPRTPSPLVLEGTIEQSSPPLSPTTKLIDRTESLNRSIEKSNSVKKSQPDLPIS KIDQWLEQYTQAIETAGRTPKLARQASIELPSMAVASTKSRWETGEVQAQSAAKTPSCKDIVAGDMSKKSLWEQK GGSKTSSTIKSTPSGKRYKFVATGHGKYEKVLVEGGPAP

#### 3382/6881 FIGURE 3117

 $\tt AGGCCTCGGGCACACAGCCGGCCCAGTCACCCGGCCCAGATGGAGGGCGGCCGGGCCCTGCACAGGCACTTGC$ CAAGGTGGCTCACACTCACGCACACTCGTACTGAGACTCAAGGCCGTCTCCACAACTCCAACCAGTGCAAATGAC TTAGTGCAAATTAAATTCAGAAGGGACGGGGGAAACAGAGTCGTGGAGGCTTTGAATCTCTCAGAAAAAAGGAAA GACAGGAAAGCTCAGAAACAAAGAGACAGAAGGATGAAAAAAGAAGAAGAGGGGGTGGTGGGGGACGGCGTCATCC  $\tt CGCTGGAGGAGCTCAGCTCTGGGA\underline{TGA} TGTGGTGGCTGGTGGTCAACCGTCCGCCAGGGGGTGGCCATGAAGA$ TGGAGTCGCCGGTGCGGGTGCTGCTGCGGCCGCTGCTGTTCCGATGGTGTCTTTGATGTTGGGCTGATGAGGT CTGGTTCCTCTAGCTTCCAGAGCCGATTCCTGAGTCAGGTAGTGCAGTGGTTGTAAAGTGCAGCATATTCATTTC GTTCTGGGAGCCCAGAGGCCATAGTGTGCCGACTCCGTGGAGGAAGTAAAGAAACAGACCCGCTTCTTGCC GCAGCCCCACCAGCCTAAGGTGTTCAGGAAGGCCGGACGCCTCCTCTGTCCTCGCCGTCACACCGGACCATGT CATGTCCTGCTTGTCACGTCCACCGGACCTGGCGTCTTGGCCTTCGGCAGCTGGTGGGCACGTCCACCCCAGCTG GAGACCTGGCCTCGTCTCCAGCCCGAACGCTGAGGCACCGATCCCGGCTCCGTCGCCGCCGCGAGGCCCGCCTT ATGCTGTACTGTCTGCCAAGCCAGCCCCAGGGGCTGAGCGGTGAGGGCATACAGCGTCACCAAGTCCACTGTGGG CCCTCTCCGCACCAGACCCTGGGCCGCAGTGCCTCGTGGGAC

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## 3383/6881 FIGURE 3118

 ${\tt MMSPGLLLKPWWGGAQSEMGRNGMLEGCSVMSVGASRLGEGRVRPRAHSRRPVTRPRWRAAGPCTGTCQGGSHSR} \\ {\tt TLVLRLKAVSTTPTSANDLVQIKFRRDGGNRVVEALNLSEKRKDRKAQKQRDRRMKKKKREVVGTASSRWRSSALGG} \\ {\tt G}$ 

· (i.